

*\*\* Paul Schubert please. Please return all attachments with search results. Thanks.*

101403

Access DB#

## SEARCH REQUEST FORM

RECEIVED

Scientific and Technical Information Center

AUG 18 2001

SCIENTIFIC DIVISION  
(STIC)

Requester's Full Name: MOLLY CEPERLEY Examiner #: 59757 Date: 08/15/03  
Art Unit: 1641 Phone Number 308-4239 Serial Number: 10/070,302  
Mail Box and Bldg/Room Location: 8D10 Results Format Preferred (circle): PAPER DISK E-MAIL  
*→ 7E12*

**If more than one search is submitted, please prioritize searches in order of need.**

\*\*\*\*\*

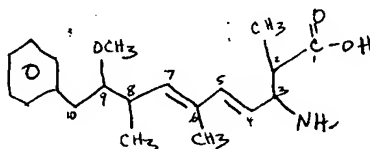
Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: \_\_\_\_\_

Inventors (please provide full names): \_\_\_\_\_

Earliest Priority Filing Date: \_\_\_\_\_ *See attachment*

*\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*



3-amino-9-methoxy-2,6,8-trimethyl-10-phenyl-4,6-decadienoic acid  
(also known as "ADDA")

*Paul: Would you please do a supplemental search on this case (see attachment) to include the specific compound shown above and also its name "ADDA" each in combination with the terms antibody, immunogen, etc. (as shown on the original search sheet). [I'm concerned that the European search report was picking up references I might be missing when I submitted claim 1 to you originally.] also would you please search for "Boc-ADDA" where the ADDA has a butyloxycarbonyl (Boc) attached at the nitrogen (-C(=O)-NH-Bu) (I believe the butyl group*

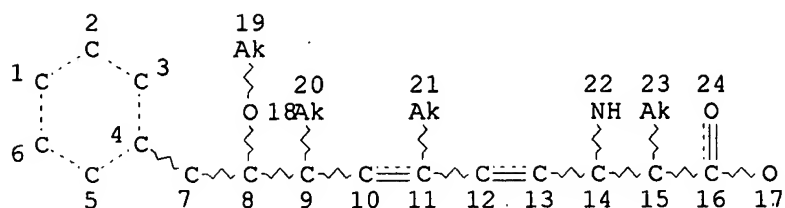
### STAFF USE ONLY

	Type of Search	Vendors and cost where applicable
Searcher: _____	NA Sequence (#) _____	STN <u>458.09</u>
Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____
Searcher Location: _____	Structure (#) <u>1</u>	Questel/Orbit _____
Date Searcher Picked Up: <u>8/19</u>	Bibliographic _____	Dr.Link _____
Date Completed: <u>8/19</u>	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: <u>30</u>	Fulltext _____	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: <u>30</u>	Other _____	Other (specify) _____

=&gt; d que

L1

STR



*Considered.*  
*08/22/03*  
*MRC*

## NODE ATTRIBUTES:

CONNECT IS E1 RC AT 17  
 CONNECT IS E1 RC AT 19  
 CONNECT IS E1 RC AT 20  
 CONNECT IS E1 RC AT 21  
 CONNECT IS E1 RC AT 23  
 DEFAULT MLEVEL IS ATOM  
 GGCAT IS LOC AT 19  
 GGCAT IS LOC AT 20  
 GGCAT IS LOC AT 21  
 GGCAT IS LOC AT 23  
 DEFAULT ECLEVEL IS LIMITED

## GRAPH ATTRIBUTES:

RSPEC 1  
 NUMBER OF NODES IS 24

## STEREO ATTRIBUTES: NONE

L3 8 SEA FILE=REGISTRY SSS FUL L1  
 L4 1 SEA FILE=REGISTRY ABB=ON PLU=ON ADDA/CN  
 L5 8 SEA FILE=REGISTRY ABB=ON PLU=ON L4 OR L3  
 L6 12 SEA FILE=HCAPLUS ABB=ON PLU=ON (L5 OR ADDA) AND (ANTIBOD? OR  
 IMMUN? OR HAPTEN OR BOVINE OR BSA OR OVALBUM? OR OVA OR  
 HORSERAD? OR HRP OR ANTIGEN? OR ELISA OR ENZYME LINKED)

=&gt; d ibib abs hitind hitstr 16 1-12

L6 ANSWER 1 OF 12 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2002:612879 HCAPLUS

DOCUMENT NUMBER: 137:381131

TITLE: [ADMAdda5]-microcystins in Planktothrix agardhii  
 strain PH-123 (cyanobacteria) - importance for  
 monitoring of microcystins in the environment

AUTHOR(S): [Laub, Jesper; Henriksen, Peter; Brittain, Scott M.;  
 Wang, Jim; Carmichael, Wayne W.; Rinehart, Kenneth L.;  
 Moestrup, Ojvind

CORPORATE SOURCE: Department of Phycology, Botanical Institute,  
 University of Copenhagen, Copenhagen K, DK-1353, Den.

SOURCE: Environmental Toxicology (2002), 17(4), 351-357  
 CODEN: ETOXFH; ISSN: 1520-4081

PUBLISHER: John Wiley &amp; Sons, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Two major and two minor microcystins (MCYST) were isolated from a

hepatotoxic Danish strain of *Planktothrix agardhii* (Gomont) Anagnostidis et Komarek by reversed-phase high-performance liq. chromatog. The microcystins were characterized by UV spectroscopy, amino acid anal., fast atom bombardment mass spectrometry (FABMS), and high-resoln. FABMS. The major microcystins were further analyzed by collisionally induced tandem electrospray ionization MS. The microcystins were found to be demethylated variants of MCYST-HtyR (homotyrosine-arginine) and MCYST-LR (leucine-arginine). The two major microcystins contained an acetyl-demethyl variant (ADMAdda) of 3-amino-9-acetoxy-2,6,8-trimethyl-10-phenyldeca-4,6-dienoic acid (Adda). This is the first report of [ADMAdda5]-microcystins in *Planktothrix*. The two [ADMAdda5]-microcystins inhibited protein phosphatase activity but showed low cross-reactivity with antibodies of an ELISA, emphasizing the potential underestimation of the toxicity of natural blooms dominated by *Planktothrix* when microcystin content is quantified using only an ELISA.

CC 4-5 (Toxicology)

Section cross-reference(s): 61

REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 12 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2002:4615 HCAPLUS

DOCUMENT NUMBER: 136:212002

TITLE: Development of a direct competitive microcystin immunoassay of broad specificity

AUTHOR(S): Weller, Michael G.; Zeck, Anne; Eikenberg, Anja; Nagata, Satoshi; Ueno, Yoshio; Niessner, Reinhard

CORPORATE SOURCE: Institute of Hydrochemistry, Technical University of Munich, Munchen, D-81377, Germany

SOURCE: Analytical Sciences (2001), 17(12), 1445-1448

CODEN: ANSCEN; ISSN: 0910-6340

PUBLISHER: Japan Society for Analytical Chemistry

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The monoclonal antibody M8H5 was used in a direct competitive enzyme immunoassay performed in microtitration plates. M8H5 antibody was produced with a microcystin-LR-BSA immunogen in BALB/c mice. This immunoassay showed a very even cross-reactivity pattern for microcystins and nodularin, suggesting that none of the cross-reactivities (except the non-toxic amino acid Adda) was significantly different from 100%. Thus, the assay is well suited to det. the sum concns. of microcystins in water samples. The detection limit of around 0.05 .mu.g/L is low enough to allow the testing for violations of the proposed WHO level of 1 .mu.g/L for microcystin-LR in drinking water. M8H5 is quite robust against matrix effects, and thus should not be prone to false pos. values.

CC 4-1 (Toxicology)

ST microcystin enzyme immunoassay M8H5 monoclonal antibody microtitration

IT Microtitration Waters

(development of direct competitive microcystin immunoassay of broad specificity for detection in waters)

IT Immunoassay (enzyme; development of direct competitive microcystin immunoassay of broad specificity for detection in waters)

IT **Antibodies**

RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)  
(monoclonal, M8H5; development of direct competitive microcystin  
**immunoassay** of broad specificity for detection in waters)

IT 96180-79-9, Microcystin-LA 101043-37-2, Microcystin-LR 101064-48-6,  
Microcystin-YR 111755-37-4, Microcystin-RR 118399-22-7, Nodularin  
123304-10-9, Microcystin-LY **126456-06-2, Adda**  
138234-58-9, Microcystin-WR 154037-70-4, Microcystin-LF 157622-02-1,  
Microcystin-LW 401929-52-0 401929-53-1 401929-54-2 402715-12-2  
RL: ANT (Analyte); ANST (Analytical study)  
(development of direct competitive microcystin **immunoassay** of  
broad specificity for detection in waters)

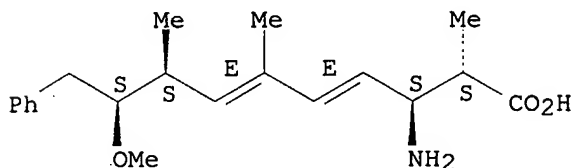
IT **126456-06-2, Adda**

RL: ANT (Analyte); ANST (Analytical study)  
(development of direct competitive microcystin **immunoassay** of  
broad specificity for detection in waters)

RN 126456-06-2 HCAPLUS

CN 4,6-Decadienoic acid, 3-amino-9-methoxy-2,6,8-trimethyl-10-phenyl-,  
(2S,3S,4E,6E,8S,9S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).  
Double bond geometry as shown.



REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER **3** OF 12 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2001:831200 HCAPLUS

DOCUMENT NUMBER: 136:139459

TITLE: Congener-Independent **Immunoassay** for  
Microcystins and Nodularins

AUTHOR(S): Fischer, Werner J.; Garthwaite, Ian; Miles,  
Christopher O.; Ross, Kathryn M.; Aggen, James B.;  
Chamberlin, A. Richard; Towers, Neale R.; Dietrich,  
Daniel R.

CORPORATE SOURCE: Nestle Research Center, Nestec Ltd., Lausanne, 1000,  
Switz.

SOURCE: Environmental Science and Technology (2001), 35(24),  
4849-4856

CODEN: ESTHAG; ISSN: 0013-936X

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Cyanobacteria (blue-green algae) (e.g., Microcystis and Nodularia species)  
capable of producing toxic peptides are found in fresh and brackish water  
worldwide. These toxins include the microcystin (MC) heptapeptides (>60  
congeners) and the nodularin pentapeptides (.apprx.5 congeners).  
Cyanobacterial cyclic peptide toxins are harmful to man, other mammals,  
birds, and fish. Acute exposure to high concns. of these toxins causes



liver damage, while subchronic or chronic exposure may promote liver tumor formation. The detection of cyclic peptide cyanobacterial toxins in surface and drinking waters has been hampered by the low limits of detection required and by the fact that the present routine detection is restricted to a few of the congeners. The unusual .beta.-amino acid **ADDA** (4E,6E-3-amino-9-methoxy-2,6,8-trimethyl-10-phenyldeca-4,6-dienoic acid) is present in most (>80%) of the known toxic penta- and heptapeptide toxin congeners. Here, we report the synthesis of two **ADDA-haptens**, the raising of **antibodies** to **ADDA**, and the development of a competitive indirect **ELISA** for the detection of microcystins and nodularins utilizing these **antibodies**. The assay has a limit of quantitation of 0.02-0.07 ng/mL (depending on which congeners are present), lower than the WHO-proposed guideline (1 ng/mL) for drinking water, irres. of the sample matrix (raw water, drinking water, or pure toxin in PBS). This new **ELISA** is robust, can be performed without sample preconcn., detects toxins in freshwater samples at lower concns. than does the protein phosphatase inhibition assay, and shows very good cross-reactivity with all cyanobacterial cyclic peptide toxin congeners tested to date (MC-LR, -RR, -YR, -LW, -LF, 3-desmethyl-MC-LR, 3-desmethyl-MC-RR, and nodularin).

CC 61-3 (Water)

Section cross-reference(s): 9, 80

ST congener independent **immunoassay** microcystin nodularin water;  
drinking water microcystin nodularin congener independent  
**immunoassay**

IT Albumins, biological studies

RL: DGN (Diagnostic use); BIOL (Biological study); USES (Uses)  
(conjugates, **bovine** serum, with **ADDA**-based  
**haptens**; for **antibody** induction thereby for  
**immunoassay** of microcystins and nodularins in water)

IT Albumins, biological studies

RL: DGN (Diagnostic use); BIOL (Biological study); USES (Uses)  
(conjugates, cationized **bovine** serum, with **ADDA**-  
based **haptens**; for **antibody** induction thereby for  
**immunoassay** of microcystins and nodularins in water)

IT Ovalbumin

RL: DGN (Diagnostic use); BIOL (Biological study); USES (Uses)  
(conjugates, with **ADDA**-based **haptens**; for  
**antibody** induction thereby for **immunoassay** of  
microcystins and nodularins in water)

IT **Haptens**

RL: DGN (Diagnostic use); SPN (Synthetic preparation); BIOL (Biological  
study); PREP (Preparation); USES (Uses)  
(conjugates; for **antibody** induction for **immunoassay**  
of microcystins and nodularins in water)

IT **Immunoassay**

(**enzyme-linked immunosorbent** assay;  
prepn. and **antibody** induction by **ADDA**-based  
**haptens** albumin conjugates for **immunoassay** of  
microcystins and nodularins in water)

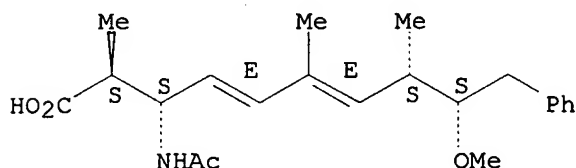
IT **Haptens**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(prepn. and conjugation with albumins for **immunoassay** of  
microcystins and nodularins)

IT 392283-03-3D, conjugates with albumins

- RL: DGN (Diagnostic use); BIOL (Biological study); USES (Uses)  
(**antibody** induction by; prepn. and **antibody** induction thereby for **immunoassay** of microcystins and nodularins in water)
- IT 7732-18-5, Water, analysis  
RL: AMX (Analytical matrix); ANST (Analytical study)  
(congener-independent **immunoassay** for microcystins and nodularin ultratrace detn. in water)
- IT 101043-37-2, Microcystin-LR 101064-48-6, Microcystin-YR 111755-37-4, Microcystin-RR 118389-26-7, 3-Desmethylnodularin 118399-22-7, Nodularin 120011-66-7, 3-Desmethylnodularin-LR 154037-70-4, Microcystin-LF 157622-02-1, Microcystin-LW  
RL: ANT (Analyte); ANST (Analytical study)  
(congener-independent **immunoassay** for microcystins and nodularin ultratrace detn. in water)
- IT 392283-03-3P 392283-06-6P  
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(**hapt**en; prepn. and IR and NMR spectra of and conjugation with albumins for **immunoassay** of microcystins and nodularins)
- IT 329791-62-0  
RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)  
(prepn. and NMR of and reaction with D-alanine Me ester hydrochloride)
- IT 392283-06-6D, conjugates with **ovalbumin**  
RL: DGN (Diagnostic use); BIOL (Biological study); USES (Uses)  
(prepn. and **antibody** induction thereby for **immunoassay** of microcystins and nodularins in water)
- IT 108-24-7, Acetic anhydride 108-55-4, Glutaric anhydride  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction with N-(tert-butoxycarbonyl)-**ADDA** Me ester)
- IT 14316-06-4, D-Alanine methyl ester hydrochloride  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction with N-acetyl-**ADDA**)
- IT 329791-62-0  
RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)  
(prepn. and NMR of and reaction with D-alanine Me ester hydrochloride)
- RN 329791-62-0 HCAPLUS
- CN 4,6-Decadienoic acid, 3-(acetyl-amino)-9-methoxy-2,6,8-trimethyl-10-phenyl-, (2S,3S,4E,6E,8S,9S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry as shown.



REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 4 OF 12 HCAPLUS COPYRIGHT 2003 ACS on STN  
ACCESSION NUMBER: 2001:815009 HCAPLUS  
DOCUMENT NUMBER: 136:299330

TITLE: Generic microcystin **immunoassay** based on monoclonal **antibodies** against **Adda**

AUTHOR(S): Zeck, Anne; Weller, Michael G.; Bursill, Don; Niessner, Reinhard

CORPORATE SOURCE: Institute of Hydrochemistry, Technical University of Munich, Munich, 81377, Germany

SOURCE: Analyst (Cambridge, United Kingdom) (2001), 126(11), 2002-2007  
CODEN: ANALAO; ISSN: 0003-2654

PUBLISHER: Royal Society of Chemistry

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A monoclonal **antibody** (clone AD4G2) was generated against a common part of microcystins and nodularins, the unusual amino acid **Adda**. A direct competitive **ELISA** based on this **antibody** was developed and the cross-reactivity pattern was measured. Different toxins showed a very similar response. The assay provides therefore a sum parameter of microcystins, nodularins and peptide fragments contg. **Adda**. The IC50 for microcystin-LR was 0.33 .mu.g/L which leads to a detection limit of 0.07 .mu.g/L. This is well below the concn. of 1 .mu.g/L proposed by the WHO as the limit for drinking water. Microcystin-LR spiked water samples at concns. 0.1-1 .mu.g/L were measured with a mean recovery of 113.+-.23%. The **antibody** is well suited for the detn. of microcystins in drinking and surface waters.

CC 61-3 (Water)

ST microcystin **immunoassay** monoclonal **antibody**  
**Adda**

IT **Antibodies**  
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)  
(monoclonal; generic microcystin **immunoassay** based on monoclonal **antibodies** against **Adda**)

IT 7732-18-5, Water, analysis  
RL: AMX (Analytical matrix); ANST (Analytical study)  
(generic microcystin **immunoassay** based on monoclonal **antibodies** against **Adda**)

IT 96180-79-9, Microcystin-LA 101043-37-2, Microcystin-LR 101064-48-6, Microcystin-YR 111755-37-4, Microcystin-RR 118389-26-7, Toxin III (Microcystis aeruginosa) 118399-22-7, Nodularin-R 120011-66-7, (d-Asp3)microcystin-LR 123304-10-9, Microcystin-LY 138234-58-9, Microcystin-WR 154037-70-4, Microcystin-LF 157622-02-1, Microcystin-LW 202120-08-9 **329791-62-0** 374589-86-3 401929-54-2  
RL: ANT (Analyte); ANST (Analytical study)  
(generic microcystin **immunoassay** based on monoclonal **antibodies** against **Adda**)

IT **126456-06-2, Adda**  
RL: ANT (Analyte); ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)  
(generic microcystin **immunoassay** based on monoclonal **antibodies** against **Adda**)

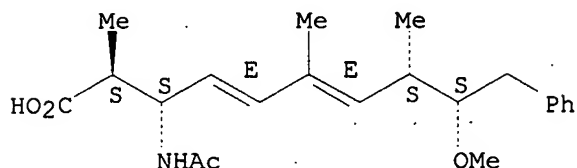
IT **329791-62-0**  
RL: ANT (Analyte); ANST (Analytical study)  
(generic microcystin **immunoassay** based on monoclonal **antibodies** against **Adda**)

RN **329791-62-0** HCAPLUS

CN 4,6-Decadienoic acid, 3-(acetylamino)-9-methoxy-2,6,8-trimethyl-10-phenyl-

, (2S,3S,4E,6E,8S,9S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry as shown.



IT 126456-06-2, Adda

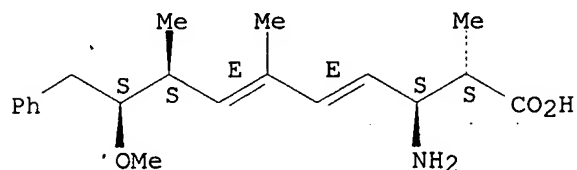
RL: ANT (Analyte); ARG (Analytical reagent use); ANST (Analytical study);  
USES (Uses)

(generic microcystin **immunoassay** based on monoclonal  
**antibodies** against Adda)

RN 126456-06-2 HCAPLUS

CN 4,6-Decadienoic acid, 3-amino-9-methoxy-2,6,8-trimethyl-10-phenyl-,  
(2S,3S,4E,6E,8S,9S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).  
Double bond geometry as shown.



REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 5 OF 12 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2001:682064 HCAPLUS

DOCUMENT NUMBER: 136:257933

TITLE: Stable genetic transformation of tomato plastids and  
expression of a foreign protein in fruit

AUTHOR(S): Ruf, Stephanie; Hermann, Marita; Berger, Irving J.;  
Carrer, Helaine; Bock, Ralph

CORPORATE SOURCE: Inst. Biol. III, Univ. Freiburg, Freiburg, D-79104,  
Germany

SOURCE: Nature Biotechnology (2001), 19(9), 870-875  
CODEN: NABIF9; ISSN: 1087-0156

PUBLISHER: Nature America Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Transgenic chloroplasts offer unique advantages in plant biotechnol.,  
including high-level foreign protein expression, absence of epigenetic  
effects, and gene containment due to the lack of transgene transmission  
through pollen. However, broad application of plastid genome engineering  
in biotechnol. has been largely hampered by both the lack of chloroplast  
transformation systems for major crop plants and the usually low plastid  
gene expression levels in nongreen tissues such as fruits, tubers, and

other storage organs. Here we describe the development of a plastid transformation system for tomato, *Lycopersicon esculentum*. This is the first report on the generation of fertile transplastomic plants in a food crop with an edible fruit. We show that chromoplasts in the tomato fruit express the trans gene to ~50% of the expression levels in leaf chloroplasts. Given the generally very high foreign protein accumulation rates that can be achieved in transgenic chloroplasts (>40% of the total sol. protein), this system paves the way to efficient prodn. of edible vaccines, pharmaceuticals, and **antibodies** in tomato.

CC 3-2 (Biochemical Genetics)

Section cross-reference(s): 6, 11

IT Gene, plant

RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)

(addA; stable genetic transformation of tomato plastids and expression of foreign protein in fruit)

REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 6 OF 12 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2001:185805 HCAPLUS

DOCUMENT NUMBER: 134:221452

TITLE: Congener independent detection of microcystin and nodularin congeners

INVENTOR(S): Dietrich, Daniel R.; Fischer, Werner; Chamberlin, A. Richard; Aggen, James B.; Garthwaite, Ian; Miles, Christopher O.; Ross, Kathryn M.; Towers, Noale

PATENT ASSIGNEE(S): Regent of the University of California, USA; New Zealand Agricultural Research

SOURCE: PCT Int. Appl., 42 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001018059	A2	20010315	WO 2000-EP8711	20000906
WO 2001018059	A3	20010802		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

EP 1210373 A2 20020605 EP 2000-956519 20000906

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL

PRIORITY APPLN. INFO.: EP 1999-116881 A 19990906

(WO 2000-EP8711) W 20000906

OTHER SOURCE(S): MARPAT 134:221452

AB The present invention relates to a proteinaceous compd. or functionally active deriv. or part thereof having a binding site for a group

represented by formula (I) which is part of a group of toxins derived from various cyanobacteria, to a method for its prodn., to diagnostic kits and to an affinity matrix (e.g. for use in **immunoaffinity** columns, online detection and purifications devices) contg. the proteinaceous compd. as well as to methods for substantially decreasing the amt. of a compd. contg. the group represented by formula (I) in fluids or for concg. compds., e.g. toxins, contg. the group represented by formula (I) from fluids such as crude water samples, exts. of algae or other tissue samples, e.g. to det. toxin concns.

- IC ICM C07K016-00  
 CC 15-3 (Immunochemistry)  
 Section cross-reference(s): 4, 9, 61  
 ST toxin cyanobacteria microcystin nodularin congener **antibody**;  
**immunoaffinity** monoclonal **antibody** toxin cyanobacteria  
 waters  
 IT Matrix media  
     (affinity; **antibodies** for **immunoaffinity** detection  
     of microcystin and nodularin congener-contg. toxin in waters)  
 IT Affinity chromatography  
     Animal  
     Blood  
     Blood serum  
     Carriers  
     Cyanobacteria  
     Drinking waters  
     **Horseradish** (*Armoracia lapathifolia*)  
     Lakes  
     Oceans  
     Rivers  
     Waters  
     (**antibodies** for **immunoaffinity** detection of  
     microcystin and nodularin congener-contg. toxin in waters)  
 IT Toxins  
     RL: ANT (Analyte); BSU (Biological study, unclassified); THU (Therapeutic  
     use); ANST (Analytical study); BIOL (Biological study); USES (Uses)  
     (**antibodies** for **immunoaffinity** detection of  
     microcystin and nodularin congener-contg. toxin in waters)  
 IT **Antibodies**  
     RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); THU  
     (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP  
     (Preparation); USES (Uses)  
     (**antibodies** for **immunoaffinity** detection of  
     microcystin and nodularin congener-contg. toxin in waters)  
 IT Resins  
     RL: ARU (Analytical role, unclassified); BUU (Biological use,  
     unclassified); DEV (Device component use); THU (Therapeutic use); ANST  
     (Analytical study); BIOL (Biological study); USES (Uses)  
     (**antibodies** for **immunoaffinity** detection of  
     microcystin and nodularin congener-contg. toxin in waters)  
 IT **Ovalbumin**  
     Peptides, biological studies  
     Plastics, biological studies  
     Polysaccharides, biological studies  
     Proteins, general, biological studies  
     RL: BSU (Biological study, unclassified); BUU (Biological use,  
     unclassified); BIOL (Biological study); USES (Uses)  
     (**antibodies** for **immunoaffinity** detection of

microcystin and nodularin congener-contg. toxin in waters)

IT Polyoxyalkylenes, biological studies  
 RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (antibodies for immunoaffinity detection of microcystin and nodularin congener-contg. toxin in waters)

IT Test kits  
 (diagnostic; antibodies for immunoaffinity detection of microcystin and nodularin congener-contg. toxin in waters)

IT Immunoglobulins  
 RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (fragments; antibodies for immunoaffinity detection of microcystin and nodularin congener-contg. toxin in waters)

IT Dialysis  
 (hemodialysis, water; antibodies for immunoaffinity detection of microcystin and nodularin congener-contg. toxin in waters)

IT Diagnosis  
 (immunodiagnosis, kit; antibodies for immunoaffinity detection of microcystin and nodularin congener-contg. toxin in waters)

IT Polymers, biological studies  
 RL: ARU (Analytical role, unclassified); BUU (Biological use, unclassified); DEV (Device component use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)  
 (matrix; antibodies for immunoaffinity detection of microcystin and nodularin congener-contg. toxin in waters)

IT Antibodies  
 RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (monoclonal; antibodies for immunoaffinity detection of microcystin and nodularin congener-contg. toxin in waters)

IT Albumins, biological studies  
 RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
 (serum, bovine; antibodies for immunoaffinity detection of microcystin and nodularin congener-contg. toxin in waters)

IT Spleen  
 (splenocyte; antibodies for immunoaffinity detection of microcystin and nodularin congener-contg. toxin in waters)

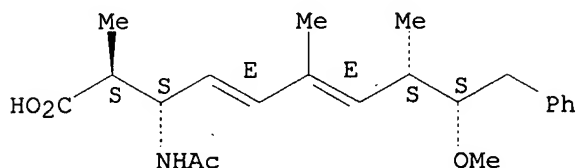
IT 77238-39-2, Microcystin 118399-22-7, Nodularin  
 RL: ANT (Analyte); BSU (Biological study, unclassified); PRP (Properties); ANST (Analytical study); BIOL (Biological study)  
 (antibodies for immunoaffinity detection of microcystin and nodularin congener-contg. toxin in waters)

IT 25322-68-3, Polyethylene glycol  
 RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (antibodies for immunoaffinity detection of microcystin and nodularin congener-contg. toxin in waters)

IT 329791-66-4DP, conjugates 329791-68-6DP, conjugates  
 RL: BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)

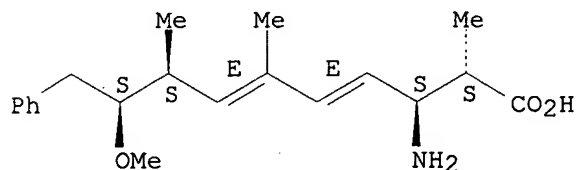
- (antibodies for immunoaffinity detection of microcystin and nodularin congener-contg. toxin in waters)
- IT 107-15-3, 1,2-Ethanediamine, reactions 530-62-1, N,N'-Carbonyldiimidazole 9003-99-0, Peroxidase 96180-79-9, Microcystin-LA 134440-91-8 329791-67-5  
 RL: RCT (Reactant); RACT (Reactant or reagent)
- (antibodies for immunoaffinity detection of microcystin and nodularin congener-contg. toxin in waters)
- IT 329791-61-9P 329791-62-0P 329791-63-1P 329791-64-2P 329791-65-3DP, protein conjugates  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
- (antibodies for immunoaffinity detection of microcystin and nodularin congener-contg. toxin in waters)
- IT 126456-06-2  
 RL: ANT (Analyte); BSU (Biological study, unclassified); PRP (Properties); ANST (Analytical study); BIOL (Biological study)  
 (toxin contg.; antibodies for immunoaffinity detection of microcystin and nodularin congener-contg. toxin in waters)
- IT 329791-62-0P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
- (antibodies for immunoaffinity detection of microcystin and nodularin congener-contg. toxin in waters)
- RN 329791-62-0 HCAPLUS  
 CN 4,6-Decadienoic acid, 3-(acetylamino)-9-methoxy-2,6,8-trimethyl-10-phenyl-, (2S,3S,4E,6E,8S,9S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry as shown.

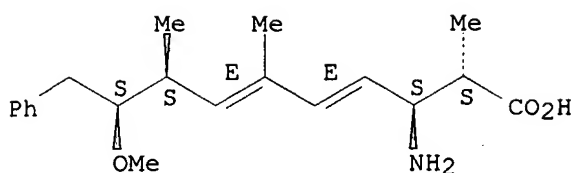


- IT 126456-06-2  
 RL: ANT (Analyte); BSU (Biological study, unclassified); PRP (Properties); ANST (Analytical study); BIOL (Biological study)  
 (toxin contg.; antibodies for immunoaffinity detection of microcystin and nodularin congener-contg. toxin in waters)
- RN 126456-06-2 HCAPLUS  
 CN 4,6-Decadienoic acid, 3-amino-9-methoxy-2,6,8-trimethyl-10-phenyl-, (2S,3S,4E,6E,8S,9S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).  
 Double bond geometry as shown.







L6 ANSWER 7 OF 12 HCAPLUS · COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2000:601756 HCAPLUS

DOCUMENT NUMBER: 134:2395

TITLE: Co-occurrence of non-toxic (cyanopeptolin) and toxic (microcystin) peptides in a bloom of *Microcystis* sp. from a Chilean lake

AUTHOR(S): Neumann, Uwe; Campos, Victoriano; Cantarero, Sergio; Urrutia, Homero; Heinze, Rita; Weckesser, Jurgen; Erhard, Marcel

CORPORATE SOURCE: Universitat Freiburg, Institut fur Biologie II, Mikrobiologie, Freiburg, D-79104, Germany

SOURCE: Systematic and Applied Microbiology (2000), 23(2), 191-197

CODEN: SAMIDF; ISSN: 0723-2020

PUBLISHER: Urban & Fischer Verlag

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A cyanobacterial bloom occurring in 1998 in lake Tres Pascualas (Concepcion/Chile) was found to be dominated by *Microcystis* sp. The bloom contained both non-toxic (cyanopeptolin-type) and hepatotoxic (microcystin-type) peptides. The cyanopeptolin structure of the non-toxic peptides (called cyanopeptolin VW-1 and VW-2, resp.) was revealed by matrix assisted laser desorption ionization mass spectrometry (MALDI-TOF-MS) of whole cells, showing dominant mol. ions at  $m/z = 975$  and  $m/z 995$ , resp. On post source decay (PSD), both cyanopeptolins showed fragments deriving from Ahp-Phe-MTyr (3-amino-6-hydroxy-2-piperidone), the characteristic partial structure of cyanopeptolins. The amts. of each of the two cyanopeptolins could only roughly be estd. to be >0.1% of bloom material dry wt. In addn., the blooms contained microcystins (20  $\mu\text{g/g}$  bloom dry wt. as detd. by RP-HPLC, 13  $\mu\text{g/g}$  according to ELISA detn.). MALDI-TOF-MS revealed several structural variants of microcystin: MCYST-RR (microcystin with Arg and Arg, indicated by  $m/z 1038$  and confirmed by PSD revealing a  $m/z = 135$  fragment deriving from the Adda side chain), and MCYST-FR (microcystin with Phe and Arg, indicated by  $m/z = 1015$ ). The presence of [Asp(3)]-MCYST-LR (microcystin with Leu and Arg, Asp non-methylated, indicated by  $m/z 981$ ), and [Asp(3)]-MCYST-YR (microcystin with Tyr and Arg, Asp non-methylated, indicated by  $m/z 1,031$ ) were likely. The relative amts. of the peptides varied between Feb., Apr., and May. Whole cell exts. from the bloom material revealed specific enzyme inhibitory activities. The serin-proteases trypsin, plasmin, elastase were inhibited, assumable due to the cyanopeptolins found. Elastase and the cysteine-protease papain were not inhibited, inhibitions of protein kinase and glutathione S-transferase (GST) were low. Strong inhibition was obsd. with protein-phosphatase-1, likely due to the microcystins present in the samples.

CC 10-1 (Microbial, Algal, and Fungal Biochemistry)

Section cross-reference(s): 4

REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 8 OF 12 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2000:129502 HCAPLUS

DOCUMENT NUMBER: 132:177722

TITLE: A method for detecting or measuring an environmental pollutant using anti-(**antigen-antibody** conjugate) **antibody**

INVENTOR(S): Ueno, Yoshio; Nagata, Satoshi

PATENT ASSIGNEE(S): Mitsubishi Kagaku Bcl K. K., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000055917	A2	20000225	JP 1998-221528	19980805
PRIORITY APPLN. INFO.:			JP 1998-221528	19980805

AB An **immunoassay** method excellent in its specificity and sensitivity is described for detecting or measuring an environmental pollutant (e.g., microcystin) using anti-(**antigen-antibody** conjugate) **antibody**, i.e., **antibody** to a conjugate between an environmental pollutant and an **antibody** to an environmental pollutant. Monoclonal **antibody** specific to the conjugate between microcystin-LR (MCLR) and the monoclonal **antibody** to MCLR was produced, and sandwich **ELISA** was established to assay MCLR using this **antibody**.

IC ICM G01N033-53

CC 9-10 (Biochemical Methods)

ST microcystin **antigen antibody** conjugate sandwich **ELISA**

IT **Antibodies**  
 RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)  
 (conjugates, with **antigen**; method for detecting or measuring environmental pollutant using anti-(**antigen-antibody** conjugate) **antibody**)

IT **Immunoassay**  
 (enzyme-linked immunosorbent assay;  
 method for detecting or measuring environmental pollutant using anti-(**antigen-antibody** conjugate) **antibody**)

IT Environmental analysis  
 Test kits  
 (method for detecting or measuring environmental pollutant using anti-(**antigen-antibody** conjugate) **antibody**)

IT **Antibodies**  
 RL: ARG (Analytical reagent use); BPR (Biological process); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)  
 (monoclonal, to conjugate between microcystin-LR and monoclonal **antibody** to microcystin-LR; method for detecting or measuring environmental pollutant using anti-(**antigen-antibody** conjugate) **antibody**)

IT **Antibodies**  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
(monoclonal, to microcystin-LR; method for detecting or measuring environmental pollutant using anti-(**antigen-antibody** conjugate) **antibody**)

IT **Antibodies**  
RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(to conjugate between **antigen** and **antibody**; method for detecting or measuring environmental pollutant using anti-(**antigen-antibody** conjugate) **antibody**)

IT 7732-18-5, Water, analysis  
RL: AMX (Analytical matrix); ANST (Analytical study)  
(method for detecting or measuring environmental pollutant using anti-(**antigen-antibody** conjugate) **antibody**)

IT 77238-39-2, Microcystin 96180-79-9, Microcystin LA 101043-37-2, Microcystin LR 101064-48-6, Microcystin YR 111755-37-4, Microcystin RR 126452-04-8 126574-49-0, 6(Z)-**Adda** microcystin LR  
RL: ANT (Analyte); ANST (Analytical study)  
(method for detecting or measuring environmental pollutant using anti-(**antigen-antibody** conjugate) **antibody**)

L6 ANSWER 9 OF 12 HCAPLUS COPYRIGHT 2003 ACS on STN  
ACCESSION NUMBER: 1998:303752 HCAPLUS  
DOCUMENT NUMBER: 129:77642  
TITLE: Anti-idiotypic monoclonal **antibodies** against anti-microcystin **antibody** and their use in enzyme immunoassay  
AUTHOR(S): Tsutsumi, Tomoaki; Nagata, Satoshi; Yoshida, Fuyuko; Ueno, Yoshio  
CORPORATE SOURCE: Department of Toxicology and Microbial Chemistry, Faculty of Pharmaceutical Sciences, Science University of Tokyo, Tokyo, 162, Japan  
SOURCE: Toxicon (1998), 36(2), 235-245  
CODEN: TOXIA6; ISSN: 0041-0101  
PUBLISHER: Elsevier Science Ltd.  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB The prodn. of anti-idiotypic MAb (MAb-ids) which react with MAb-mc and their use in a **ELISA** for microcystins were described. The measurement of microcystins in freshwater samples was described.

CC 4-1 (Toxicology)

ST monoclonal **antibody** microcystin **ELISA**

IT **Immunoassay**  
(enzyme-linked immunosorbent assay; anti-idiotypic monoclonal **antibodies** against anti-microcystin **antibody** and use in enzyme immunoassay)

IT **Antibodies**  
RL: ARU (Analytical role, unclassified); ANST (Analytical study)  
(monoclonal; anti-idiotypic monoclonal **antibodies** against anti-microcystin **antibody** and use in enzyme immunoassay)

IT 7732-18-5, Water, analysis  
RL: AMX (Analytical matrix); ANST (Analytical study)  
(anti-idiotypic monoclonal **antibodies** against anti-microcystin

**antibody** and use in enzyme **immunoassay**)  
IT 77238-39-2, Microcystin 101043-37-2, Microcystin LR 101064-48-6,  
Microcystin YR 111755-37-4, Microcystin RR 126574-49-0, 6(Z)-  
**Adda** microcystin LR  
RL: ANT (Analyte); ANST (Analytical study)  
(anti-idiotypic monoclonal **antibodies** against anti-microcystin  
**antibody** and use in enzyme **immunoassay**)  
REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 10 OF 12 HCAPLUS COPYRIGHT 2003 ACS on STN  
ACCESSION NUMBER: 1996:664839 HCAPLUS  
DOCUMENT NUMBER: 126:27870  
TITLE: Detection and Identification of Metabolites of  
Microcystins Formed in Vivo in Mouse and Rat Livers  
AUTHOR(S): Kondo, Fumio; Matsumoto, Hiroshi; Yamada, Seiji;  
Ishikawa, Naohisa; Ito, Emiko; Nagata, Satoshi; Ueno,  
Yoshio; Suzuki, Makoto; Harada, Ken-ichi  
CORPORATE SOURCE: Aichi Prefectural Institute of Public Health, Nagoya,  
462, Japan  
SOURCE: Chemical Research in Toxicology (1996), 9(8),  
1355-1359  
CODEN: CRTOEC; ISSN: 0893-228X  
PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB The hepatic metab. of microcystins (MCs), potent cyclic peptide  
hepatotoxins produced by cyanobacteria, was studied by i.p. injection in  
mice and rats. An **immunoaffinity** purifn. method using an  
anti-MC-LR monoclonal **antibody** showed a remarkable effect on the  
removal of contaminants in the hepatic cytosol and enabled us to analyze  
MCs and their metabolites by HPLC and Frit-FAB LC/MS. At 3, 6, and 24 h  
post-injection of MC-RR, a small percent of the applied dose was detected  
in all of the mouse livers together with several metabolites. Among them,  
GSH and Cys conjugates of MC-RR were identified at 3 and 24 h, resp., by  
comparison with the chem. prep'd. stds., indicating that the thiols of GSH  
and Cys nucleophilically bound to the Mdha moiety of MCs. Another  
metabolite was presumed to be formed by both epoxidn. followed by  
hydrolysis and sulfate conjugation in the **Adda** moiety and GSH  
conjugation in the Mdha moiety. In rat livers, MC-LR showed almost the  
same behavior as that of MC-RR in mouse livers. These results suggest  
that the conjugation of GSH with MCs may play a role in the metabolic  
pathway leading to detoxification of MCs.

CC 4-5 (Toxicology)

L6 ANSWER 11 OF 12 HCAPLUS COPYRIGHT 2003 ACS on STN  
ACCESSION NUMBER: 1995:624109 HCAPLUS  
DOCUMENT NUMBER: 123:109726  
TITLE: Novel monoclonal **antibodies** against  
microcystin and their protective activity for  
hepatotoxicity  
AUTHOR(S): Nagata, Satoshi; Soutome, Hiroshi; Tsutsumi, Tomoaki;  
Hasegawa, Akihiro; Sekijima, Masaru; Sugamata, Masao;  
Harada, Ken-ichi; Suganuma, Masami; Ueno, Yoshio  
CORPORATE SOURCE: Faculty Pharmaceutical Sciences, Science University  
Tokyo, Tokyo, 162, Japan  
SOURCE: Natural Toxins (1995), 3(2), 78-86

CODEN: NATOEE; ISSN: 1056-9014

PUBLISHER: Wiley-Liss  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

- AB Six monoclonal **antibodies** (MAbs) to microcystin-LR(MCLR), a cyclic heptapeptide hepatotoxin isolated from the cyanobacterium *Microcystis aeruginosa*, were produced. They showed the protective effects on hepatotoxicity of MCLR in vitro and in vivo, and on the inhibition of protein phosphatase by MCLR. Competitive **ELISAs** with various microcystins revealed that the six MAbs recognized a part of the mol., in particular, a tertial structure around **Adda**, 3-amino-9-methoxy-2,6,8-trimethyl-10-phenyldeca-4,6-dienoic acid. The specificity of these MAbs varied slightly. In primary rat hepatocyte cultures, all MAbs showed protective effects against the MCLR-induced cell damages, assessed by morphol. changes, lactate dehydrogenase release into the medium, and a calorimetric assay to measure the cell viability using a tetrazolium dye. The M8H5 MAb, showing the highest affinity for MCLR, blocked the lethal effects and hepatocellular damage to mice. In addn., M8H5 MAb recovered protein phosphatase 2A inhibition by MCLR in a dose-dependent manner, while phosphatase inhibition by okadaic acid was not affected. Thus, the MAbs specifically reacted with the microcystins and prevented their biol. activities. This is the first report on the protective effects of specific monoclonal **antibodies** on MCLR-induced toxicity.
- CC 15-3 (Immunochemistry)  
 Section cross-reference(s): 4, 61
- ST monoclonal **antibody** microcystin hepatotoxicity
- IT Liver, disease  
 (monoclonal **antibodies** to microcystin provide protection against toxicity)
- IT *Microcystis aeruginosa*  
 (prepn. and protective activity against hepatotoxicity of monoclonal **antibodies** to microcystin of)
- IT **Immunoglobulins**  
 RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)  
 (A, monoclonal, to microcystin-LR)
- IT **Immunoglobulins**  
 RL: BAC (Biological activity or effector, except adverse); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BIOL (Biological study); PREP (Preparation)  
 (G1, monoclonal, to microcystin-LR)
- IT 9025-75-6, Protein phosphatase  
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
 (2A; monoclonal **antibody** prevents microcystin inhibition of)
- IT 96180-79-9, Microcystin-LA 101064-48-6, Microcystin-YR 111755-37-4, Microcystin-RR 118399-22-7, Nodularin 120011-66-7 126452-04-8, 6(Z)-**Adda** microcystin RR 126574-49-0, 6(Z)-**Adda** microcystin LR 134842-07-2 142635-75-4 146402-62-2  
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
 (monoclonal **antibodies** to microcystin-LR cross-reactivity with)
- IT 101043-37-2, Microcystin-LR  
 RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study);

## PROC (Process)

(prepn. and protective activity against hepatotoxicity of monoclonal antibodies to)

L6 ANSWER 12 OF 12 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1995:302008 HCAPLUS

DOCUMENT NUMBER: 122:98883

TITLE: Use of a colorimetric protein phosphatase inhibition assay and **enzyme linked immunosorbent** assay for the study of microcystins and nodularins

AUTHOR(S): An, JiSi; Carmichael, Wayne W.

CORPORATE SOURCE: Dep. Biological Sciences, Wright State Univ., Dayton, OH, 45435, USA

SOURCE: Toxicon (1994), 32(12), 1495-507

CODEN: TOXIA6; ISSN: 0041-0101

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Using a rabbit anti-microcystin-LR polyclonal **antibody** prep., the cross-reactivity with 18 microcystin and nodularin variants was tested. A hydrophobic amino acid, 3-amino-9-methoxy-10-phenyl-2,6,8-trimethyl-deca-4(E),6(E)-dienoic acid (**Adda**), which has the (E) form at the C-6 double bond in both microcystin and nodularin, [was found essential for these toxins to express **antibody** specificity. Modification of -COOH in glutamic acid of microcystin and nodularin did not alter their **antigenicity**. **Antibody** cross-reactivity of these toxins was compared with their ability to inhibit protein phosphatase type 1 (PP1). Detection of PP1 inhibition was done by measuring the inhibition effect of the toxins on p-nitrophenol phosphate activity toward PP1. PP1 was obtained as recombinant PP1 expressed in E. coli. The inhibition effect of five microcystins and two nodularins on recombinant PP1 activity toward p-nitrophenol phosphate was measured in a microwell plate reader. The concn. of microcystin-LR causing 50% inhibition of recombinant PP1 activity (IC50) was about 0.3 nM, while that of two modified microcystins had a significantly higher IC50. Microcystin-LR and nodularin with the (z) form of **Adda** at the C-6 double bond or having the monoester of glutamic acid did not inhibit PP1. These three toxins were also nontoxic in the mouse bioassay. These results show the importance of **Adda** and glutamic acid in toxicity of these cyclic peptides and that PPI inhibition is related to the toxins' mechanism of action.

CC 4-1 (Toxicology)

ST protein phosphatase inhibition assay microcystin nodularin; **ELISA** microcystin nodularinIT **Immunoassay**

(**enzyme-linked immunosorbent** assay, colorimetric protein phosphatase inhibition assay and **enzyme linked immunosorbent** assay for the study of microcystins and nodularins)

IT Carcinogens

(promoters, colorimetric protein phosphatase inhibition assay and **enzyme linked immunosorbent** assay for the study of microcystins and nodularins)

IT 9025-75-6, Protein phosphatase

RL: ANT (Analyte); ANST (Analytical study)

(1; colorimetric protein phosphatase inhibition assay and

**enzyme linked immunosorbent** assay for the  
study of microcystins and nodularins)

IT 101043-37-2, Microcystin lr 101043-37-2D, Microcystin lr, derivs.  
126574-49-0 134842-07-2 138234-57-8 146402-62-2 159410-67-0  
159516-66-2

RL: ANT (Analyte); ANST (Analytical study)

(colorimetric protein phosphatase inhibition assay and **enzyme  
linked immunosorbent** assay for the study of  
microcystins and nodularins)

=> b anabstr aquasci babs biosis biotechno caba cancerlit caplus ceaba-vtb cropu  
embase esbiobase europatful fsta lifesci medline pascal pctfull prompt scisearch  
uspatful

FILE 'ANABSTR' ENTERED AT 16:25:11 ON 19 AUG 2003

COPYRIGHT (c) 2003 THE ROYAL SOCIETY OF CHEMISTRY (RSC)

FILE 'AQUASCI' ENTERED AT 16:25:11 ON 19 AUG 2003

COPYRIGHT 2003 FAO (On behalf of the ASFA Advisory Board). All rights reserved.

FILE 'BABS' ENTERED AT 16:25:11 ON 19 AUG 2003

COPYRIGHT (c) 2003 Beilstein-Institut zur Foerderung der Chemischen Wissenschaften  
licensed to Beilstein Chemiedaten & Software GmbH and MDL Information Systems GmbH

FILE 'BIOSIS' ENTERED AT 16:25:11 ON 19 AUG 2003

COPYRIGHT (C) 2003 BIOLOGICAL ABSTRACTS INC.(R)

FILE 'BIOTECHNO' ENTERED AT 16:25:11 ON 19 AUG 2003

COPYRIGHT (C) 2003 Elsevier Science B.V., Amsterdam. All rights reserved.

FILE 'CABA' ENTERED AT 16:25:11 ON 19 AUG 2003

COPYRIGHT (C) 2003 CAB INTERNATIONAL (CABI)

FILE 'CANCERLIT' ENTERED AT 16:25:11 ON 19 AUG 2003

FILE 'CAPLUS' ENTERED AT 16:25:11 ON 19 AUG 2003

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'CEABA-VTB' ENTERED AT 16:25:11 ON 19 AUG 2003

COPYRIGHT (c) 2003 DECHEMA eV

FILE 'CROPU' ENTERED AT 16:25:11 ON 19 AUG 2003

COPYRIGHT (C) 2003 THOMSON DERWENT

FILE 'EMBASE' ENTERED AT 16:25:11 ON 19 AUG 2003

COPYRIGHT (C) 2003 Elsevier Science B.V. All rights reserved.

FILE 'ESBIOBASE' ENTERED AT 16:25:11 ON 19 AUG 2003

COPYRIGHT (C) 2003 Elsevier Science B.V., Amsterdam. All rights reserved.

FILE 'EUROPATFULL' ENTERED AT 16:25:11 ON 19 AUG 2003

COPYRIGHT (c) 2003 WILA Verlag Muenchen (WILA)

FILE 'FSTA' ENTERED AT 16:25:11 ON 19 AUG 2003

COPYRIGHT (C) 2003 International Food Information Service

FILE 'LIFESCI' ENTERED AT 16:25:11 ON 19 AUG 2003

COPYRIGHT (C) 2003 Cambridge Scientific Abstracts (CSA)

FILE 'MEDLINE' ENTERED AT 16:25:11 ON 19 AUG 2003

FILE 'PASCAL' ENTERED AT 16:25:11 ON 19 AUG 2003

Any reproduction or dissemination in part or in full,  
by means of any process and on any support whatsoever



is prohibited without the prior written agreement of INIST-CNRS.  
COPYRIGHT (C) 2003 INIST-CNRS. All rights reserved.

FILE 'PCTFULL' ENTERED AT 16:25:11 ON 19 AUG 2003  
COPYRIGHT (C) 2003 Univentio

FILE 'PROMT' ENTERED AT 16:25:11 ON 19 AUG 2003  
COPYRIGHT (C) 2003 Gale Group. All rights reserved.

FILE 'SCISEARCH' ENTERED AT 16:25:11 ON 19 AUG 2003  
COPYRIGHT 2003 THOMSON ISI

FILE 'USPATFULL' ENTERED AT 16:25:11 ON 19 AUG 2003  
CA INDEXING COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

=> s 17

5 FILES SEARCHED...  
11 FILES SEARCHED...  
12 FILES SEARCHED...  
16 FILES SEARCHED...  
17 FILES SEARCHED...  
L10 138 L7

=> dup rem l10

PROCESSING COMPLETED FOR L10

L11 72 DUP REM L10 (66 DUPLICATES REMOVED)

=> d que l11

L7 QUE ~~ABB=ON~~ PLU=ON ~~ADDA AND~~ (ANTIBOD? OR IMMUN? OR HAPT  
EN OR BOVINE OR BSA OR OVALBUM? OR OVA OR HORSERAD? OR HR  
P OR ANTIGEN? OR ELISA OR ENZYME LINKED)  
L10 138 SEA L7  
L11 72 DUP REM L10 (66 DUPLICATES REMOVED)

=> d l11 ibib ab 1-72

L11 ANSWER 1 OF 72 EUROPATFULL COPYRIGHT 2003 WILA on STN

PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET

ACCESSION NUMBER: 614977 EUROPATFULL EW 199437 FS OS STA B  
TITLE: Huntingtin DNA, protein and uses thereof.  
Huntingtin-DNA, Protein und Verwendung.  
ADN-Huntingtin, proteine et utilisation.  
INVENTOR(S): MacDonald, Marcy E., 462 Waltham Street, Lexington,  
Massachusetts 02173, US;  
Ambrose, Christine M., 42-8th Street, No. 3105  
Charlestown, Massachusetts 02129, US;  
Duyao, Mabel P., 24 Aberdeen Avenue, Cambridge,  
Massachusetts 02138, US;  
Gusella, James F., 7 Woodstock Drive, Framingham,  
Massachusetts 01701, US  
PATENT ASSIGNEE(S): THE GENERAL HOSPITAL CORPORATION, 55 Fruit Street,  
Boston, MA 02114, US  
PATENT ASSIGNEE NO: 370400

AGENT: Wright, Simon Mark et al, Kilburn & Strode 30 John  
Street, London WC1N 2DD, GB

AGENT NUMBER: 72651

OTHER SOURCE: ESP1994064 EP 0614977 A2 940914

SOURCE: Wila-EPZ-1994-H37-T1a

DOCUMENT TYPE: Patent

LANGUAGE: Anmeldung in Englisch; Veroeffentlichung in Englisch

DESIGNATED STATES: R AT; R BE; R CH; R DE; R DK; R ES; R FR; R GB; R GR; R  
IE; R IT; R LI; R LU; R MC; R NL; R PT; R SE

PATENT INFO.PUB.TYPE: EPA2 EUROPAEISCHE PATENTANMELDUNG

PATENT INFORMATION:

PATENT NO	KIND	DATE
EP 614977	A2	19940914
		19940914
EP 1994-301587		19940307
US 1993-27498		19930305
US 1993-85000		19930701

'OFFENLEGUNGS' DATE:

APPLICATION INFO.:

PRIORITY APPLN. INFO.:

# GRANTED PATENT - ERTEILTES PATENT - BREVET DELIVRE

ACCESSION NUMBER: 614977 EUROPATFULL EW 200304 FS PS

TITLE: Huntingtin DNA, protein and uses thereof.  
Huntingtin-DNA, Proteine und Verwendung.  
ADN-Huntingtin, proteine et utilisation.

INVENTOR(S): MacDonald, Marcy E., 462 Waltham Street, Lexington,  
Massachusetts 02173, US;  
Ambrose, Christine M., 42-8th Street, No. 3105  
Charlestown, Massachusetts 02129, US;  
Duyao, Mabel P., 24 Aberdeen Avenue, Cambridge,  
Massachusetts 02138, US;  
Gusella, James F., 7 Woodstock Drive, Framingham,  
Massachusetts 01701, US

PATENT ASSIGNEE(S): THE GENERAL HOSPITAL CORPORATION, Fruit Street, Boston,  
MA 02114, US

PATENT ASSIGNEE NO: 370402

AGENT: White, Martin Paul et al., Kilburn & Strode, 20 Red Lion  
Street, London WC1R 4PJ, GB

AGENT NUMBER: 74783

OTHER SOURCE: MEPB2003004 EP 0614977 B1 0087

SOURCE: Wila-EPS-2003-H04-T1

DOCUMENT TYPE: Patent

LANGUAGE: Anmeldung in Englisch; Veroeffentlichung in Englisch

DESIGNATED STATES: R AT; R BE; R CH; R DE; R DK; R ES; R FR; R GB; R GR; R  
IE; R IT; R LI; R LU; R MC; R NL; R PT; R SE

PATENT INFO.PUB.TYPE: EPB1 EUROPAEISCHE PATENTSCHRIFT

PATENT INFORMATION:

PATENT NO	KIND	DATE
EP 614977	B1	20030122
		19940914
EP 1994-301587		19940307
US 1993-27498		19930305
US 1993-85000		19930701

'OFFENLEGUNGS' DATE:

APPLICATION INFO.:

PRIORITY APPLN. INFO.:

REFERENCE PAT. INFO.:

REF. NON-PATENT-LIT.:

US 4666828 A

SOMAT. CELL MOL. GENET., vol. 17, no. 5, 1991 pages  
481-488, LIN ET AL. 'New DNA markers in the Huntington's

disease gene candidate region' NATURE GENET., vol. 1, May 1992 pages 99-103, MAC DONALD ET AL. 'The Huntington's disease candidate region exhibits many different haplotypes' CELL, vol. 72, 26 March 1993 pages 971-983, THE HUNTINGTON'S DISEASE COLLABORATIVE RESEARCH GROUP 'A novel gene containing a trinucleotide repeat that is expanded and unstable on Huntington's disease chromosomes' CR ACAD. SCI. III, vol. 316, no. 11, November 1993 pages 1374-1380, DOD ET AL. 'Huntington's disease in French families: CAG repeat expansion and linkage disequilibrium analysis' MOL. CELL PROBES, vol. 7, no. 3, June 1993 pages 235-239, WARNER ET AL. 'A new polymerase chain reaction (PCR) assay for the trinucleotide repeat that is unstable and expanded on Huntington's disease chromosomes' MOL. CELL. BIOL., vol. 10, no. 11, November 1990 pages 5616-5625, LAURENT ET AL. 'The SNF5 protein of Saccharomyces cerevisiae is a glutamine- and proline-rich transcriptional activator that affects expression of a broad spectrum of genes'

ABEN A novel gene, huntingtin, is described, encoding huntingtin protein, recombinant vectors and hosts capable of expressing huntingtin. Methods for the diagnosis and treatment of Huntington's disease are also provided. <image>

L11 ANSWER 2 OF 72 USPATFULL on STN

ACCESSION NUMBER: 2003:152327 USPATFULL

TITLE: HLA-DR2 binding peptides

INVENTOR(S): Deshpande, Shrikant, Fremont, CA, UNITED STATES  
Arimilli, Subhashini, Fremont, CA, UNITED STATES  
Choudhury, Kalidip, Fremont, CA, UNITED STATES

PATENT ASSIGNEE(S): Corixa Corporation, Seattle, WA, UNITED STATES, 98104  
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003103993	A1	20030605
APPLICATION INFO.:	US 2001-12363	A1	20011212 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-254886P	20001212 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH FLOOR, SAN FRANCISCO, CA, 94111-3834	
NUMBER OF CLAIMS:	18	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	3 Drawing Page(s)	
LINE COUNT:	1904	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention provides a polypeptide sequence, GHIKSSISFMGM, that disrupts binding of the amino acid sequence peptides of myelin basic protein (MBP) to HLA-DR2 class II MHC molecules and acts as an antagonist in DR2-restricted **antigen** presentation to human T cell clones. In particular, the invention provides the polypeptide sequence itself and variants, compositions comprising the polypeptide,

polynucleotides encoding the polypeptide, and methods for using the polypeptides and polynucleotides for treating autoimmune disorders.

L11 ANSWER 3 OF 72 USPATFULL on STN

ACCESSION NUMBER: 2003:113492 USPATFULL

TITLE: Antiviral agents

INVENTOR(S): Arad, Shoshana, Omer, ISRAEL  
Huliheil, Mahmoud, Beer-Sheva, ISRAEL  
Tal, Jacov, Beer-Sheva, ISRAEL

PATENT ASSIGNEE(S): Ben-Gurion University of the Negev Research and  
Development (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003078233	A1	20030424
APPLICATION INFO.:	US 2002-175830	A1	20020621 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1997-973660, filed on 19 Dec 1997, PENDING		

	NUMBER	DATE
PRIORITY INFORMATION:	IL 1995-114267	19950622
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	PENNIE & EDMONDS LLP, 1667 K Street, N.W., Washington, DC, 20006	
NUMBER OF CLAIMS:	23	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	8 Drawing Page(s)	
LINE COUNT:	717	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		
AB	An antiviral composition containing as the active ingredient an antivirally-effective amount of a red microalga polysaccharide, or a mixture of two or more red microalga polysaccharides.	

L11 ANSWER 4 OF 72 USPATFULL on STN

ACCESSION NUMBER: 2003:46314 USPATFULL

TITLE: Lipxygenase genes from Vitis vinifera

INVENTOR(S): Descenzo, Richard A., Modesto, CA, UNITED STATES  
Irelan, Nancy A., Modesto, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003033627	A1	20030213
APPLICATION INFO.:	US 2001-978522	A1	20011016 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-241220P	20001016 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Jeffrey S. Sharp, Marshall, Gerstein & Borun, 6300 Sears Tower, 233 South Wacker Drive, Chicago, IL, 60606-6357	
NUMBER OF CLAIMS:	24	
EXEMPLARY CLAIM:	1	
LINE COUNT:	2150	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Lipoxygenase genes from *Vitis vinifera* and polypeptides encoded thereby are provided.

L11 ANSWER 5 OF 72 USPATFULL on STN

ACCESSION NUMBER: 2003:169096 USPATFULL

TITLE: Nucleic acid sequences and expression system relating to *Enterococcus faecium* for diagnostics and therapeutics

INVENTOR(S): Doucette-Stamm, Lynn A., Framingham, MA, United States  
Bush, David, Somerville, MA, United States

PATENT ASSIGNEE(S): Genome Therapeutics Corporation, Waltham, MA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6583275	B1	20030624
APPLICATION INFO.:	US 1998-107532		19980630 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-85598P	19980514 (60)
	US 1997-51571P	19970702 (60)

DOCUMENT TYPE: Utility

FILE SEGMENT: GRANTED

PRIMARY EXAMINER: Marschel, Ardin H.

LEGAL REPRESENTATIVE: Genome Therapeutics Corporation

NUMBER OF CLAIMS: 34

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 0 Drawing Figure(s); 0 Drawing Page(s)

LINE COUNT: 15265

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention provides isolated polypeptide and nucleic acid sequences derived *Enterococcus faecium* that are useful in diagnosis and therapy of pathological conditions; **antibodies** against the polypeptides; and methods for the production of the polypeptides. The invention also provides methods for the detection, prevention and treatment of pathological conditions resulting from bacterial infection.

L11 ANSWER 6 OF 72 USPATFULL on STN

ACCESSION NUMBER: 2003:81597 USPATFULL

TITLE: Nucleotide sequence of the mycoplasma genitalium genome, fragments thereof, and uses thereof

INVENTOR(S): Fraser, Claire M., Potomac, MD, United States  
Adams, Mark D., N. Potomac, MD, United States  
Gocayne, Jeannine D., Silver Spring, MD, United States  
Hutchison, III, Clyde A., Chapel Hill, NC, United States

Smith, Hamilton O., Towson, MD, United States

Venter, J. Craig, Potomac, MD, United States

White, Owen, Gaithersburg, MD, United States

PATENT ASSIGNEE(S): The Institute for Genomic Research, Rockville, MD, United States (U.S. corporation)

Johns Hopkins University, Baltimore, MD, United States (U.S. corporation)

The University of North Carolina at Chapel Hill, Chapel Hill, NC, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6537773	B1	20030325
APPLICATION INFO.:	US 1995-545528		19951019 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1995-488018, filed on 7 Jun 1995, now abandoned Continuation-in-part of Ser. No. US 1995-473545, filed on 7 Jun 1995, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Ketter, James		
ASSISTANT EXAMINER:	Schnizer, Richard		
LEGAL REPRESENTATIVE:	Human Genome Sciences, Inc.		
NUMBER OF CLAIMS:	44		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	23 Drawing Figure(s); 23 Drawing Page(s)		
LINE COUNT:	15190		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides the nucleotide sequence of the entire genome of *Mycoplasma genitalium*, SEQ ID NO:1. The present invention further provides the sequence information stored on computer readable media, and computer-based systems and methods which facilitate its use. In addition to the entire genomic sequence, the present invention identifies protein encoding fragments of the genome, and identifies, by position relative to two (2) genes known to flank the origin of replication, any regulatory elements which modulate the expression of the protein encoding fragments of the *Mycoplasma genitalium* genome.

L11 ANSWER 7 OF 72 USPATFULL on STN

ACCESSION NUMBER:	2003:13200 USPATFULL
TITLE:	Nucleotide sequence of the <i>Haemophilus influenzae</i> Rd genome, fragments thereof, and uses thereof
INVENTOR(S):	Fleischmann, Robert D., Gaithersburg, MD, United States Adams, Mark D., N. Potomac, MD, United States White, Owen, Gaithersburg, MD, United States Smith, Hamilton O., Towson, MD, United States Venter, J. Craig, Potomac, MD, United States
PATENT ASSIGNEE(S):	Human Genome Science, Inc., Rockville, MD, United States (U.S. corporation) Johns Hopkins University, Baltimore, MD, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6506581	B1	20030114
APPLICATION INFO.:	US 2000-557884		20000425 (9)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1995-476102, filed on 7 Jun 1995 Continuation-in-part of Ser. No. US 1995-426787, filed on 21 Apr 1995, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Brusca, John S.		
LEGAL REPRESENTATIVE:	Human Genome Sciences, Inc.		
NUMBER OF CLAIMS:	51		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	47 Drawing Figure(s); 47 Drawing Page(s)		

LINE COUNT: 4510

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides the sequencing of the entire genome of Haemophilus influenzae Rd, SEQ ID NO:1. The present invention further provides the sequence information stored on computer readable media, and computer-based systems and methods which facilitate its use. In addition to the entire genomic sequence, the present invention identifies over 1700 protein encoding fragments of the genome and identifies, by position relative to a unique Not I restriction endonuclease site, any regulatory elements which modulate the expression of the protein encoding fragments of the Haemophilus genome.

L11 ANSWER 8 OF 72 EUROPATFULL COPYRIGHT 2003 WILA on STN

PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET

ACCESSION NUMBER: 1241262 EUROPATFULL EW 200238 FS OS  
 TITLE: A method for promoting fatty acid synthesis in a plant.  
 Methode zur Foerderung der Fettsaeurebiosynthese in einer Pflanze.  
 Procede pout augmenter la synthese d'acides gras dans une plante.  
 INVENTOR(S): Sasaki, Yukiko A301, Mitsuke-momiji-en, 1-14,  
 Mitsuke-Cho, Chikusa-Ku, Nagoya City, Aichi Pref., JP;  
 Yokota, Akiho, 11-37-108, Nishimatsugaoka, Ikoma City, Nara Pref., JP;  
 Madoka, Yuka 302, Sun Beam Fujinari, 2-38-1,  
 Koukawa-Cho, Chikusa-Ku, Nagoya City, Aichi Pref., JP  
 PATENT ASSIGNEE(S): Nara Institute of Science and Technology, 8916-5,  
 Takayama-cho, Ikoma City, Nara Pref., JP  
 PATENT ASSIGNEE NO: 2914700  
 AGENT: Klunker . Schmitt-Nilson . Hirsch, Winzererstrasse 106,  
 80797 Muenchen, DE  
 AGENT NUMBER: 101001  
 OTHER SOURCE: BEPA2002078 EP 1241262 A2 0042  
 SOURCE: Wila-EPZ-2002-H38-T1a  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Anmeldung in Englisch; Veroeffentlichung in Englisch  
 DESIGNATED STATES: R AT; R BE; R CH; R CY; R DE; R DK; R ES; R FI; R FR; R GB; R GR; R IE; R IT; R LI; R LU; R MC; R NL; R PT; R SE; R TR; R AL; R LT; R LV; R MK; R RO; R SI  
 PATENT INFO.PUB.TYPE: EPA2 EUROPAEISCHE PATENTANMELDUNG  
 PATENT INFORMATION:

PATENT NO	KIND DATE
EP 1241262	A2 20020918
	20020918
EP 2002-5639	20020312
JP 2001-2001070691	20010313
JP 2001-2001300038	20010928

ABEN According to the present invention, a novel method for promoting fatty acid content in a plant is provided. In this method, the promoter of accD gene of acetyl-CoA carboxylase was replaced with a promoter directing abundant expression in plastids and chloroplasts by using plastid transformation. This method increases the carboxyltransferase beta subunit protein encoded by the accD gene. Accompanied with it, the other subunits constituting the acetyl-CoA carboxylase apparently

increases and this enzyme increases. Since the acetyl-CoA carboxylase is a key enzyme for rate-limiting step of fatty acid synthesis, synthesis of fatty acid can be promoted by the method of the present invention. The transformed plant produced according to the method of the present invention exhibits remarkable enhancement in the fatty acid content in leaves and seeds. Moreover, the leaf longevity extended and the number of the seeds per a plant body increased, thereby seed oil and productivity of the plant are improved. <image>

L11 ANSWER 9 OF 72 PCTFULL COPYRIGHT 2003 Univentio on STN  
 ACCESSION NUMBER: 2002089742 PCTFULL ED 20021121 EW 200246  
 TITLE (ENGLISH): HEPARIN/HEPAROSAN SYNTHASE AND METHODS OF MAKING AND USING SAME  
 TITLE (FRENCH): HEPARINE/HEPAROSAN SYNTHASES ET PROCEDES DE FABRICATION CORRESPONDANT  
 INVENTOR(S): DEANGELIS, Paul, L., 706 Sunnybrook Drive, Edmond, OK 73034, US [US, US]  
 PATENT ASSIGNEE(S): DEANGELIS, Paul, L., 706 Sunnybrook Drive, Edmond, OK 73034, US [US, US]  
 AGENT: PALMER, John\$, LADAS & PARRY, 5670 Wilshire Boulevard, Suite 2100, Los Angeles, CA 90036\$, US  
 LANGUAGE OF FILING: English  
 LANGUAGE OF PUBL.: English  
 DOCUMENT TYPE: Patent  
 PATENT INFORMATION:

NUMBER	KIND	DATE
WO 2002089742	A2	20021114

## DESIGNATED STATES

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR  
 CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID  
 IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD  
 MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI  
 SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW  
 RW (ARIPO): GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW  
 RW (EAPO): AM AZ BY KG KZ MD RU TJ TM  
 RW (EPO): AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE  
 TR  
 RW (OAPI): BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

APPLICATION INFO.: WO 2002-US14581 A 20020508  
 PRIORITY INFO.: US 2001-60/289,554 20010508  
 US 2001-60/296,386 20010606  
 US 2001-60/303,691 20010706  
 US 2001-60/313,258 20010817

ABEN The presently claimed and disclosed invention relates, in general, to dual action heparin synthases and, more particularly, to dual action heparin synthases obtained from *Pasteurella multocida*. The presently claimed and disclosed invention also relates to heparosan, heparin and heparin-like molecules provided by recombinant techniques and methods of using such molecules and also the identification or prediction of heparin synthases or component single action enzymes. The presently claimed and disclosed invention also relates to methods, and molecules produced according to such methods, for using the presently claimed and disclosed heparosan and/or heparin synthase for polymer grafting and the production of non-naturally occurring chimeric polymers incorporating stretches of one or more acidic GAG molecules, such as



heparin, chondroitin, hyaluronan, and/or heparosan.

ABFR L'invention concerne de maniere generale l'heparine synthase a double action et, plus particulierement, l'heparine synthase a double action issue de *Pasteurella multocida*. Par ailleurs, l'invention concerne des molecules d'heparosan, d'heparine et de type heparine obtenues par des techniques de recombinaison, des procedes d'utilisation de ces molecules, ainsi que l'identification ou la prevision de l'heparine synthase ou d'enzymes constitutives a action unique. De plus, l'invention concerne des methodes, ainsi que des molecules obtenues via ces methodes, faisant intervenir l'heparosan et/ou l'heparine synthase pour la greffe de polymere et la production de polymeres chimeres comportant des sequences d'une ou de plusieurs molecules GAG acides, telles que l'heparine, la chondroïtine, l'hyaluronane, et/ou l'heparosan.

L11 ANSWER 10 OF 72 PCTFULL COPYRIGHT 2003 Univentio on STN  
 ACCESSION NUMBER: 2002076989 PCTFULL ED 20021011 EW 200240  
 TITLE (ENGLISH): PROTEIN PHOSPHATE INHIBITORS  
 TITLE (FRENCH): INHIBITEURS DE PROTEINE PHOSPHATE  
 INVENTOR(S): MCCLUSKEY, Adam, 19 Simpson Court, Mayfield, NSW 2304, AU [GB, AU];  
 SAKOFF, Jennette, 71 Green Point Drive, Belmont, NSW 2280, AU [AU, AU];  
 ACKLAND, Stephen, 95 Carrington Parade, New Lambton Heights, NSW 2305, AU [AU, AU]  
 PATENT ASSIGNEE(S): THE UNIVERSITY OF NEWCASTLE RESEARCH ASSOCIATES  
 LIMITED, Industry Development Centre, University Drive, Callaghan, NSW 2308, AU [AU, AU], for all designates States except US;  
 MCCLUSKEY, Adam, 19 Simpson Court, Mayfield, NSW 2304, AU [GB, AU], for US only;  
 SAKOFF, Jennette, 71 Green Point Drive, Belmont, NSW 2280, AU [AU, AU], for US only;  
 ACKLAND, Stephen, 95 Carrington Parade, New Lambton Heights, NSW 2305, AU [AU, AU], for US only  
 AGENT: BALDWIN SHELSTON WATERS\$, 60 Margaret Street, Sydney, NSW 2000\$, AU  
 LANGUAGE OF FILING: English  
 LANGUAGE OF PUBL.: English  
 DOCUMENT TYPE: Patent  
 PATENT INFORMATION:

NUMBER	KIND	DATE
WO 2002076989	A1	20021003

## DESIGNATED STATES

W:

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR  
 CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID  
 IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD  
 MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI  
 SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW  
 GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW  
 AM AZ BY KG KZ MD RU TJ TM  
 AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE  
 TR

RW (ARIPO):

RW (EAPO):

RW (EPO):

RW (OAPI):

APPLICATION INFO.:

PRIORITY INFO.:

BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG  
 WO 2002-AU360 A 20020325  
 AU 2001-PR 3923 20010323

ABEN The present invention relates to modulators of cell cycle regulation and, in particular, to a protein phosphatase inhibitor which can interfere with the cell cycle; processes for the production of the inhibitor; and uses of the inhibitor, in particular in the treatment of disease, such as cancer.

ABFR L'invention concerne des modulateurs de regulation de cycle cellulaire et, en particulier, un regulateur de proteine phosphatase pouvant interferer avec le cycle cellulaire ; des procedes de production de l'inhibiteur ; ainsi que des utilisations de l'inhibiteur, en particulier dans le traitement de maladies telles que le cancer.

L11 ANSWER 11 OF 72 PCTFULL COPYRIGHT 2003 Univentio on STN  
 ACCESSION NUMBER: 2002057291 PCTFULL ED 20020801 EW 200230  
 TITLE (ENGLISH): HLA-DR2 BINDING PEPTIDES  
 TITLE (FRENCH): PEPTIDES DE LIAISON HLA-DR2  
 INVENTOR(S): DESHPANDE, Shrikant, 5910 Remer Terrace, Fremont, CA 94555, US [IN, US];  
 ARIMILLI, Subhashini, 4789 Ridge Wood Drive, Fremont, CA 94555, US [IN, US];  
 CHOUDHURY, Kalidip, 42163 Rosewood Common, Fremont, CA 94538, US [US, US]  
 PATENT ASSIGNEE(S): CORIXA CORPORATION, 1124 Columbia Street, Suite 200, Seattle, WA 98104, US [US, US], for all designates States except US;  
 DESHPANDE, Shrikant, 5910 Remer Terrace, Fremont, CA 94555, US [IN, US], for US only;  
 ARIMILLI, Subhashini, 4789 Ridge Wood Drive, Fremont, CA 94555, US [IN, US], for US only;  
 CHOUDHURY, Kalidip, 42163 Rosewood Common, Fremont, CA 94538, US [US, US], for US only  
 AGENT: PARENT, Annette, S.S., Townsend and Townsend and Crew LLP, Two Embarcadero Center, 8th Floor, San Francisco, CA 94111-3834\$, US  
 LANGUAGE OF FILING: English  
 LANGUAGE OF PUBL.: English  
 DOCUMENT TYPE: Patent  
 PATENT INFORMATION:

NUMBER	KIND	DATE
WO 2002057291	A2	20020725

## DESIGNATED STATES

W:

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR  
 CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID  
 IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD  
 MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI  
 SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW

RW (ARIPO):

GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW

RW (EAPO):

AM AZ BY KG KZ MD RU TJ TM

RW (EPO):

AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE  
 TR

RW (OAPI):

BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

APPLICATION INFO.:

WO 2001-US47912 A 20011212

PRIORITY INFO.:

US 2000-60/254,886 20001212

US 2001-10/012,363 20011211

ABEN The invention provides a polypeptide sequence, GHIKSSISFMGM, that disrupts binding of the amino acid sequence peptides of myelin basic protein (MBP) to HLA-DR2 class II MHC molecules and acts as an

antagonist in DR2-restricted **antigen** presentation to human T cell clones. In particular, the invention provides the polypeptide sequence itself and variants, compositions comprising the polypeptide, polynucleotides encoding the polypeptide, and methods for using the polypeptides and polynucleotides for treating autoimmune disorders.

ABFR L'invention concerne une sequence polypeptidique, GHIKSSISFMGM, interrompant la liaison des peptides de la sequence d'acides amines de la proteine basique de la myeline (MBP) aux molecules MHC de class II HLA-DR2 et constituant un antagoniste dans la presentation de l'**antigene** DR2 aux clones des lymphocytes T humains. L'invention concerne, en particulier, la sequence polypeptidique elle-meme et ses variants, des compositions comprenant le polypeptide, les polynucleotides codant pour le polypeptide et des methodes d'utilisation des polypeptides et des polynucleotides dans le traitement des troubles auto-immuns.

L11 ANSWER 12 OF 72 PCTFULL COPYRIGHT 2003 Univentio on STN  
 ACCESSION NUMBER: 2002044157 PCTFULL ED 20020624 EW 200223  
 TITLE (ENGLISH): PARB INHIBITORS  
 TITLE (FRENCH): INHIBITEURS DE LA PARP  
 INVENTOR(S): MELESE, Teri, 850 Maude Avenue, Mountain View, CA 94043, US [US, US];  
 PERKINS, Edward, L., 850 Maude Avenue, Mountain View, CA 94043, US [US, US];  
 YEH, Elaine, 850 Maude Avenue, Mountain View, CA 94043, US [US, US];  
 SUN, Donxu, 850 Maude Avenue, Mountain View, CA 94043, US [CN, US]  
 PATENT ASSIGNEE(S): ICONIX PHARMACEUTICALS, INC., 850 Maude Avenue, Mountain View, CA 94043, US [US, US], for all designates States except US;  
 MELESE, Teri, 850 Maude Avenue, Mountain View, CA 94043, US [US, US], for US only;  
 PERKINS, Edward, L., 850 Maude Avenue, Mountain View, CA 94043, US [US, US], for US only;  
 YEH, Elaine, 850 Maude Avenue, Mountain View, CA 94043, US [US, US], for US only;  
 SUN, Donxu, 850 Maude Avenue, Mountain View, CA 94043, US [CN, US], for US only  
 AGENT: ROBINS, Roberta, L.\$, Robins & Pasternak LLP, 545 Middlefield Road, Suite 180, Menlo Park, CA 94025\$, US  
 LANGUAGE OF FILING: English  
 LANGUAGE OF PUBL.: English  
 DOCUMENT TYPE: Patent  
 PATENT INFORMATION:

NUMBER	KIND	DATE
WO 2002044157	A2	20020606

## DESIGNATED STATES

W:

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR  
 CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID  
 IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD  
 MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI  
 SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZM ZW

RW (ARIPO):

GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW

RW (EAPO):

AM AZ BY KG KZ MD RU TJ TM

RW (EPO):

AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

TR

RW (OAPI): BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG  
 APPLICATION INFO.: WO 2001-US46811 A 20011203  
 PRIORITY INFO.: US 2000-60/250,811 20001201  
 ABEN Compounds of formula 1, 2, and 3 where A<sb>1</sb> is C(R<sb>4</sb>) or N; A<sb>2</sb> is C(R<sb>5</sb>) or S; R<sb>1</sb> is H, lower alkyl, halo, or a carbonyl; R<sb>2</sb> is H, lower alkyl, acyl, or forms a double bond with an adjacent ring atom; R<sb>3</sb> is H, lower alkyl, halo, aryl, aralkyl, acyl, lower alkenyl, or a radical or the form (CH<sb>2</sb>)nC(O)-R<sb>a</sb>, where R<sb>a</sb> is lower alkyl, OH, NH<sb>2</sb>, lower alkoxy, lower alkylamino, di(lower alkyl)amino, aryl, or heterocyclyl, or forms a double bond with an adjacent ring atom; R<sb>4</sb> is H, lower alkyl, or forms a double bond with an adjacent ring atom, R<sb>5</sb> is H, lower alkyl, OH, halo, lower alkoxy, lower alkyl-thio, aryl-thio, or heterocyclyl-thio; R<sb>6</sb> and R<sb>7</sb> are each independently H, lower alkyl, OH, lower alkoxy, halo, nitro, amino, thio, acyl, lower alkylamino, acyloxy, acylamino, sulfinyl, sulfonyl, alkylsulfinyl, alkylsulfonyl, arylsulfonyl, aryl, heterocyclyl, aralkyl, or heterocyclyl-alkyl; R<sb>10</sb> is H, lower alkyl, lower alkenyl, aryl, heterocyclyl, aryl-lower alkyl, or heterocyclyl-lower alkyl; and R<sb>11</sb>, R<sb>12</sb>, and R<sb>13</sb> are each independently halo, nitro, OH, NH<sb>2</sb>, or lower alkyl, and pharmaceutically acceptable salts thereof, are effective modulators of PARP enzymes.

ABFR L'invention concerne des composés des formules 1, 2 et 3, dans lesquelles A<sb>1</sb> représente C(R<sb>4</sb>) ou N ; A<sb>2</sb> représente C(R<sb>5</sb>) ou S ; R<sb>1</sb> représente H, alkyle inférieur, halo, ou un carbonyle ; R<sb>2</sb> représente H, alkyle inférieur, acyle, ou forme une double liaison avec un atome cyclique adjacent ; R<sb>3</sb> représente H, alkyle inférieur, halo, aryle, aralkyle, acyle, alcényle inférieur, ou un radical de la forme-(CH<sb>2</sb>)<sb>n</sb>C(O)-R<sb>a</sb>, ou R<sb>a</sb> représente alkyle inférieur, OH, NH<sb>2</sb>, alcoxy inférieur, alkylamino inférieur, di(alkyl-inferieur)amino, aryle, ou heterocyclyle, ou forme une double liaison avec un atome cyclique adjacent ; R<sb>4</sb> représente H, alkyle inférieur, ou forme une double liaison avec un atome cyclique adjacent ; R<sb>5</sb> représente H, alkyle inférieur, OH, halo, alcoxy inférieur, alkyl-thio inférieur, aryl-thio, ou heterocyclyl-thio ; R<sb>6</sb> et R<sb>7</sb> représentent chacun indépendamment H, alkyle inférieur, OH, alcoxy inférieur, halo, nitro, amino, thio, acyle, alkylamino inférieur, acyloxy, acylamino, sulfinyle, sulfonyle, alkylsulfinyle, alkylsulfonyle, arylsulfonyle, aryle, heterocyclyle, aralkyle, ou heterocyclyl-alkyle ; R<sb>10</sb> représente H, alkyle inférieur, alcényle inférieur, aryle, heterocyclyle, aryl-inferieur alkyle, ou heterocyclyl-inferieur alkyle ; et R<sb>11</sb>, R<sb>12</sb> et R<sb>13</sb> représentent chacun indépendamment halo, nitro, OH, NH<sb>2</sb>, ou alkyle inférieur, ainsi que des sels pharmaceutiquement acceptables de ces composés, qui sont des modulateurs efficaces des enzymes PARP.

L11 ANSWER 13 OF 72 PCTFULL COPYRIGHT 2003 Univentio on STN  
 ACCESSION NUMBER: 2002029017 PCTFULL ED 20020627 EW 200215  
 TITLE (ENGLISH): A NOVEL TRF1 BINDING PROTEIN, METHODS OF USE THEREOF  
 TITLE (FRENCH): NOUVELLE PROTEINE DE LIAISON TRF1 ET PROCÉDES  
 D'UTILISATION DE CELLE-CI  
 INVENTOR(S): DE LANGE, Titia, 430 East 63rd Street, #8, New York, NY  
 10021, US [NL, US];

PATENT ASSIGNEE(S): SMITH, Susan, 564 First Avenue, Apt. 22D, New York, NY 10021, US [US, US]  
 THE ROCKEFELLER UNIVERSITY, 1230 York Avenue, New York, NY 10021-6399, US [US, US], for all designates States except US;  
 DE LANGE, Titia, 430 East 63rd Street, #8, New York, NY 10021, US [NL, US], for US only;  
 SMITH, Susan, 564 First Avenue, Apt. 22D, New York, NY 10021, US [US, US], for US only  
 AGENT: DAVIS, Michael, D.\$, Klauber & Jackson, 411 Hackensack Avenue, Hackensack, NJ 07601\$, US  
 LANGUAGE OF FILING: English  
 LANGUAGE OF PUBL.: English  
 DOCUMENT TYPE: Patent  
 PATENT INFORMATION:

NUMBER	KIND	DATE
WO 2002029017	A2	20020411

## DESIGNATED STATES

W:

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR  
 CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL  
 IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG  
 MK MN MW MX MZ NO NZ PH PL PT RO RU SD SE SG SI SK SL  
 TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

RW (ARIPO):

GH GM KE LS MW MZ SD SL SZ TZ UG ZW

RW (EAPO):

AM AZ BY KG KZ MD RU TJ TM

RW (EPO):

AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE  
 TR

RW (OAPI):

BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

APPLICATION INFO.:

WO 2001-US29931 A 20010925

PRIORITY INFO.:

US 2000-09/678,411 20001003

ABEN The present invention discloses a unique tankyrase fusion protein that contains a nuclear localization signal sequence. Nucleic acid encoding this tankyrase are also disclosed. Methods of screening drugs using the tankyrase fusion proteins are also included.

ABFR L'invention concerne une proteine de fusion unique, la tankyrase, laquelle contient une sequence-signal de localisation nucleaire. L'invention concerne egalement des acides nucleiques codant cette tankyrase, ainsi que des procedes de criblage de medicaments dans lesquels on utilise les proteines de fusion tankyrases.

L11 ANSWER 14 OF 72 USPATFULL on STN

ACCESSION NUMBER:

2002:273576 USPATFULL

TITLE:

Immune mediators and related methods

INVENTOR(S):

Kindsvogel, Wayne, Seattle, WA, UNITED STATES  
 Reich, Eva Pia, Palo Alto, CA, UNITED STATES  
 Gross, Jane A., Seattle, WA, UNITED STATES  
 Deshpande, Shrinkant, Fremont, CA, UNITED STATES  
 Sheppard, Paul O., Redmond, WA, UNITED STATES

PATENT ASSIGNEE(S):

Corixa Corp., Seattle, WA, UNITED STATES, 98104 (U.S. corporation)

NUMBER	KIND	DATE
US 2002151707	A1	20021017
US 2002-81281	A1	20020220 (10)

PATENT INFORMATION:

US 2002151707 A1 20021017

APPLICATION INFO.:

US 2002-81281 A1 20020220 (10)

RELATED APPLN. INFO.:

Continuation of Ser. No. US 1999-261811, filed on 3 Mar

1999, PENDING Continuation of Ser. No. US 1996-657581,  
filed on 7 Jun 1996, ABANDONED Continuation of Ser. No.  
US 1995-480002, filed on 7 Jun 1995, ABANDONED  
Continuation of Ser. No. US 1995-483241, filed on 7 Jun  
1995, ABANDONED Continuation of Ser. No. US  
1995-482133, filed on 7 Jun 1995, ABANDONED

	NUMBER	DATE
PRIORITY INFORMATION:	US 1995-5964P	19951027 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH FLOOR, SAN FRANCISCO, CA, 94111-3834	
NUMBER OF CLAIMS:	26	
EXEMPLARY CLAIM:	1	
LINE COUNT:	4579	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB **Immune** modulators, such as soluble, fused MHC heterodimers and  
soluble, fused MHC heterodimer:peptide complexes, are described. Related  
methods and peptides are also disclosed. In a preferred aspect, these  
mediators and methods are related to autoimmunity.

L11 ANSWER ~~15~~ OF 72 USPATFULL on STN

ACCESSION NUMBER: 2002:157801 USPATFULL  
TITLE: **Immune** mediators and related methods  
INVENTOR(S): Carter, Darrick, Seattle, WA, UNITED STATES  
Zhu, Shirley, San Mateo, CA, UNITED STATES  
Arimilli, Subhashini, Fremont, CA, UNITED STATES  
Wang, Aijun, Issaquah, WA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002082411	A1	20020627
APPLICATION INFO.:	US 2001-815837	A1	20010322 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-264003P	20010123 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH FLOOR, SAN FRANCISCO, CA, 94111-3834	
NUMBER OF CLAIMS:	42	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	14 Drawing Page(s)	
LINE COUNT:	5798	

AB The present invention relates to nucleic acids encoding single chain MHC  
class II molecules that form multimers via inter-chain multimerization  
domains, and methods of treating autoimmune disease using the same.

L11 ANSWER ~~16~~ OF 72 USPATFULL on STN

ACCESSION NUMBER: 2002:129727 USPATFULL  
TITLE: Rupestris stem pitting associated virus nucleic acids,  
proteins, and their uses  
INVENTOR(S): Gonsalves, Dennis, Geneva, NY, United States  
Meng, Baozhong, Geneva, NY, United States

PATENT ASSIGNEE(S): ProfiGen Inc., Nashville, TN, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6399308	B1	20020604
APPLICATION INFO.:	US 2000-707780		20001107 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 2000-574141, filed on 18 May 2000		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-69902P	19971217 (60)
	US 1997-47147P	19970520 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Zitomer, Stephanie W.	
ASSISTANT EXAMINER:	Tung, Joyce	
LEGAL REPRESENTATIVE:	Clark & Elbing LLP	
NUMBER OF CLAIMS:	8	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	19 Drawing Figure(s); 16 Drawing Page(s)	
LINE COUNT:	4575	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to an isolated protein or polypeptide corresponding to a protein or polypeptide of a Rupestris stem pitting associated virus. The encoding DNA molecule, either alone in isolated form, in an expression system, a host cell, or a transgenic grape plant, is also disclosed. Other aspects of the present invention relate to a method of imparting Rupestris stem pitting associated virus resistance to grape plants by transforming them with the DNA molecule of the present invention, and a method of detecting the presence of a Rupestris stem pitting associated virus, such as RSPaV-1, in a sample.

L11 ANSWER 17 OF 72 USPATFULL on STN

ACCESSION NUMBER: 2002:122439 USPATFULL  
TITLE: Detection of Rupestris stem pitting associated virus  
INVENTOR(S): Gonsalves, Dennis, Geneva, NY, United States  
Meng, Baozhong, Geneva, NY, United States  
PATENT ASSIGNEE(S): Cornell Research Foundation, Inc., Ithaca, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6395490	B1	20020528
APPLICATION INFO.:	US 2000-574141		20000518 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-47147P	19970520 (60)
	US 1997-69902P	19971217 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Jones, W. Gary	
ASSISTANT EXAMINER:	Tung, Joyce	
LEGAL REPRESENTATIVE:	Clark & Elbing LLP	
NUMBER OF CLAIMS:	40	

EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 10 Drawing Figure(s); 16 Drawing Page(s)  
LINE COUNT: 5684  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to an isolated protein or polypeptide corresponding to a protein or polypeptide of a Rupestris stem pitting associated virus. The encoding DNA molecule, either alone in isolated form, in an expression system, a host cell, or a transgenic grape plant, is also disclosed. Other aspects of the present invention relate to a method of imparting Rupestris stem pitting associated virus resistance to grape plants by transforming them with the DNA molecule of the present invention, and a method of detecting the presence of a Rupestris stem pitting associated virus, such as RSPaV-1, in a sample.

L11 ANSWER 18 OF 72 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN  
DUPLICATE 1

ACCESSION NUMBER: 2002:470744 BIOSIS

DOCUMENT NUMBER: PREV200200470744

TITLE: (ADMAdda5)-microcystins in Planktothrix agardhii strain pH-123 (cyanobacteria): Importance for monitoring of microcystins in the environment.

AUTHOR(S): Laub, Jesper; Henriksen, P  ter (1); Brittain, Scott M.; Wang, Jim; Carmichael, Wayne W.; Rinehart, Kenneth L.; M  strup, Ojvind

CORPORATE SOURCE: (1) Department of Marine Ecology, National Environmental Research Institute, Frederiksborgvej 399, DK-4000, Roskilde: pet@dmu.dk Denmark

SOURCE: Environmental Toxicology, (August, 2002) Vol. 17, No. 4, pp. 351-357. print.  
ISSN: 1520-4081.

DOCUMENT TYPE: Article

LANGUAGE: English

AB Two major and two minor microcystins (MCYST) were isolated from a hepatotoxic Danish strain of Planktothrix agardhii (Gomont) Anagnostidis et Komarek by reversed-phase high-performance liquid chromatography. The microcystins were characterized by UV spectroscopy, amino acid analysis, fast atom bombardment mass spectrometry (FABMS), and high-resolution FABMS. The major microcystins were further analysed by collisionally induced tandem electrospray ionization MS. The microcystins were found to be demethylated variants of MCYST-HtyR (homotyrosine-arginine) and MCYST-LR (leucine-arginine). The two major microcystins contained an acetyl-demethyl variant (ADMAdda) of 3-amino-9-acetoxy-2,6,8-trimethyl-10-phenyldeca-4,6-dienoic acid (Adda). This is the first report of (ADMAdda5)-microcystins in Planktothrix. The two (ADMAdda5)-microcystins inhibited protein phosphatase activity but showed low cross-reactivity with antibodies of an enzyme-linked immunosorbent assay (ELISA), emphasizing the potential underestimation of the toxicity of natural blooms dominated by Planktothrix when microcystin content is quantified using only an ELISA.

L11 ANSWER 19 OF 72 PCTFULL COPYRIGHT 2003 Univentio on STN

ACCESSION NUMBER: 2001070245 PCTFULL ED 20020822

TITLE (ENGLISH): IMMUNE MEDIATORS AND RELATED METHODS

TITLE (FRENCH): MEDIATEUR IMMUNITAIRE ET METHODES ASSOCIEES

INVENTOR(S): CARTER, Darrick;

ZHU, Shirley;



PATENT ASSIGNEE(S): ARIMILLI, Subhashini;  
WANG, Aijun  
CORIXA CORPORATION;  
CARTER, Darrick;  
ZHU, Shirley;  
ARIMILLI, Subhashini;  
WANG, Aijun

DOCUMENT TYPE:  
PATENT INFORMATION:

NUMBER	KIND	DATE
WO 2001070245	A1	20010927

DESIGNATED STATES

W:

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU  
CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN  
IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK  
MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM  
TR TT TZ UA UG US UZ VN YU ZA ZW GH GM KE LS MW MZ SD  
SL SZ TZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY  
DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR BF BJ CF  
CG CI CM GA GN GW ML MR NE SN TD TG

APPLICATION INFO.: WO 2001-US9616 A 20010322  
PRIORITY INFO.: US 2000-60/191,274 20000322  
US 2000-60/204,249 20000515  
US 2001-60/264,003 20010123

ABEN The present invention relates to nucleic acids encoding single chain MHC class II molecules that form multimers via inter-chain multimerization domains, and methods of treating autoimmune disease using the same.

ABFR L'invention concerne des acides nucleiques codant pour des molecules de classe II du CMH qui forment des multimeres via des domaines de multimerisation entre chaines, ainsi que des methodes de traitement de maladie auto-immune les utilisant.

L11 ANSWER 20 OF 72 PCTFULL COPYRIGHT 2003 Univentio on STN  
ACCESSION NUMBER: 2001067337 PCTFULL ED 20020822  
TITLE (ENGLISH): INTERNET SYSTEM FOR EXCHANGING AND ORGANIZING VESSEL TRANSPORT INFORMATION  
TITLE (FRENCH): SYSTEME INTERNET SERVANT A ECHANGER ET ORGANISER DES INFORMATIONS CONCERNANT DES TRANSPORTS PAR NAVIRE  
INVENTOR(S): KLUSS, Stewart, R.  
PATENT ASSIGNEE(S): CHARTERING SOLUTIONS;  
KLUSS, Stewart, R.  
DOCUMENT TYPE: Patent

PATENT INFORMATION:

NUMBER	KIND	DATE
WO 2001067337	A1	20010913

DESIGNATED STATES

W:

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU  
CZ DE DK DM EE ES FI GB GD GE HR HU ID IL IN IS JP KE  
KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX  
MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ  
UA UG US UZ VN YU ZA ZW GH GM KE LS MW MZ SD SL SZ TZ  
UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE DK ES  
FI FR GB GR IE IT LU MC NL PT SE TR BF BJ CF CG CI CM  
GA GN GW ML MR NE SN TD TG

APPLICATION INFO.: WO 2001-US1878 A 20010119

PRIORITY INFO.: US 2000-09/520,195 20000307  
 US 2000-09/520,325 20000307

ABEN A ship chartering system is implemented on a computer of telecommunications network (Fig. 15 - 30a), such as the Internet, and is meant to supplement or replace services offered by current shipping brokers. The system allows a charterer to locate acceptable ships (Fig. 15 - 1506), receive bids from ship owners (Fig. 15 - 1506), and negotiate contract terms for their cargo (Fig. 15 - 1506). Ship owners are able to update their ship positions and cargo capabilities (Fig. 15 - 1504), add new ships to a database of available ships (Fig. 15 - 47), and bid on the transportation of cargo entered by a charterer in an open market solicitation. In a preferred embodiment, both charterers and ship owners must subscribe to the system in order to access and participate in it.

ABFR Systeme d'affretement de navire mis en application sur un ordinateur de reseau de telecommunications (FIG.15-30A), tel qu'Internet, et concu pour completer ou remplacer des services offerts par des transitaires habituels. Ce systeme permet a l'affreteur de localiser les navires appropries (fig 15-1506) et de negocier les termes du contrat de transport de fret (fig.15-1506). Les proprietaires de navires ont la possibilite de mettre a jour la position de leurs navires et leurs capacites de fret (fig.15-1504), d'ajouter de nouveaux navires a une base de donnees de navires disponibles (fig.15-47) et de soumettre des offres de transport de fret sollicitees par l'affreteur sur un marche libre. Dans un mode de realisation prefere, l'affreteur et le propriétaire du navire doivent tous les deux souscrire un abonnement a ce systeme afin d'y acceder et d'y participer.

L11 ANSWER 21 OF 72 PCTFULL COPYRIGHT 2003 Univentio on STN  
 ACCESSION NUMBER: 2001018059 PCTFULL ED 20020828  
 TITLE (ENGLISH): CONGENER INDEPENDENT DETECTION OF MICROCYSTIN AND NODULARIN CONGENERES  
 TITLE (FRENCH): DETECTION DE MICROCYSTINES INDEPENDANTE DES CONGENERES ET CONGENERES DE NODULARINE  
 INVENTOR(S): DIETRICH, Daniel, R.;  
 FISCHER, Werner;  
 CHAMBERLIN, A., Richard;  
 AGGEN, James, B.;  
 GARTHWAITE, Ian;  
 MILES, Christopher, O.;  
 ROSS, Kathryn, M.;  
 TOWERS, Noale  
 PATENT ASSIGNEE(S): THE REGENT OF THE UNIVERSITY OF CALIFORNIA;  
 NEW ZEALAND AGRICULTURAL RESEARCH;  
 DIETRICH, Daniel, R.;  
 FISCHER, Werner;  
 CHAMBERLIN, A., Richard;  
 AGGEN, James, B.;  
 GARTHWAITE, Ian;  
 MILES, Christopher, O.;  
 ROSS, Kathryn, M.;  
 TOWERS, Noale  
 DOCUMENT TYPE: Patent  
 PATENT INFORMATION:

NUMBER	KIND	DATE
WO 2001018059	A2	20010315

## DESIGNATED STATES

W:

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU  
 CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN  
 IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK  
 MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM  
 TR TT TZ UA UG US UZ VN YU ZA ZW GH GM KE LS MW MZ SD  
 SL SZ TZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY  
 DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG  
 CI CM GA GN GW ML MR NE SN TD TG

## APPLICATION INFO.:

WO-2000-EP8711 A 20000906

## PRIORITY INFO.:

EP 1999-99116881.6 19990906

ABEN

The present invention relates to a proteinaceous compound or functionally active derivative or part thereof having a binding site for a group represented by formula (I) which is part of a group of toxins derived from various cyanobacteria, to a method for its production, to diagnostic kits and to an affinity matrix (e.g. for use in immunoaffinity columns, online detection and purifications devices) containing the proteinaceous compound as well as to methods for substantially decreasing the amount of a compound containing the group represented by formula (I) in fluids or for concentrating compounds, e.g. toxins, containing the group represented by formula (I) from fluids such as crude water samples, extracts of algae or other tissue samples, e.g. to determine toxin concentrations.

ABFR

L11 ANSWER 22 OF 72 USPATFULL on STN

ACCESSION NUMBER:

2001:18022 USPATFULL

TITLE:

Stabilizing vitamin A derivatives by encapsulation in lipid vesicles formed with alkylammonium fatty acid salts

INVENTOR(S):

Aust, Duncan T., Ridge, NY, United States  
 Ross, Michael A., Jericho, NY, United States  
 Wilmott, James M., Shoreham, NY, United States  
 Hayward, James A., Stony Brook, NY, United States  
 Collaborative Laboratories, Inc., East Setauket, NY,  
 United States (U.S. corporation)

PATENT ASSIGNEE(S):

NUMBER	KIND	DATE
US 6183774	B1	20010206
US 1999-375683		19990817 (9)

PATENT INFORMATION:

APPLICATION INFO.:

RELATED APPLN. INFO.:

Continuation-in-part of Ser. No. US 1999-255160, filed on 22 Feb 1999, now patented, Pat. No. US 6071535  
 Continuation-in-part of Ser. No. US 1996-594175, filed on 31 Jan 1996, now patented, Pat. No. US 5874105, issued on 23 Feb 1999

DOCUMENT TYPE:

Utility

FILE SEGMENT:

Granted

PRIMARY EXAMINER:

Kishore, Gollamudi S.

LEGAL REPRESENTATIVE:

Darby &amp; Darby

NUMBER OF CLAIMS:

21

EXEMPLARY CLAIM:

1

NUMBER OF DRAWINGS:

15 Drawing Figure(s); 7 Drawing Page(s)

LINE COUNT:

1258

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB

The present invention provides for vitamin A derivative selected from the group consisting of retinol, retinyl ester and any combination

thereof incorporated into liposomes formed with alkylammonium fatty acid salts, and methods for manufacturing same. The liposomes of the invention may deliver vitamin A derivative materials at the occurrence of a preset triggering condition. Preferred liposomes of the invention are cationic liposomes. The preferred liposomes of the invention are formed with alkylammonium fatty acid salts, e.g., trialkylammonium fatty acid salts of long chain amides. The encapsulated vitamin A derivative is thus stabilized by the liposomes. The present invention thus also provides a method of stabilizing vitamin A derivative by encapsulation in such liposomes. The liposomes of the invention are used to provide topical skin treatment formulations useful in the treatment of skin.

L11 ANSWER 23 OF 72 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN  
DUPLICATE 2

ACCESSION NUMBER: 2002:68766 BIOSIS

DOCUMENT NUMBER: PREV200200068766

TITLE: ~~Congener-independent~~ immunoassay for microcystins  
and nodularins.

AUTHOR(S): Fischer, Werner J.; Garthwaite, Ian; Miles, Christopher O.;  
Ross, Kathryn M.; Aggen, James B.; Chamberlin, A. Richard;  
Towers, Neale R.; ~~Dietrich, Daniel R.~~ (1)

CORPORATE SOURCE: (1) Environmental Toxicology, University of Konstanz,  
D-78457, Konstanz: Daniel.Dietrich@uni-konstanz.de Germany

SOURCE: Environmental Science & Technology, (December 15, 2001)  
Vol. 35, No. 24, pp. 4849-4856.  
<http://pubs.acs.org/journals/esthag/>. print.  
ISSN: 0013-936X.

DOCUMENT TYPE: Article

LANGUAGE: English

AB Cyanobacteria (blue-green algae) (e.g., Microcystis and Nodularia spp.) capable of producing toxic peptides are found in fresh and brackish water worldwide. These toxins include the microcystin (MC) heptapeptides (>60 congeners) and the nodularin pentapeptides (ca. 5 congeners). Cyanobacterial cyclic peptide toxins are harmful to man, other mammals, birds, and fish. Acute exposure to high concentrations of these toxins causes liver damage, while subchronic or chronic exposure may promote liver tumor formation. The detection of cyclic peptide cyanobacterial toxins in surface and drinking waters has been hampered by the low limits of detection required and that the present routine detection is restricted to a few of the congeners. The unusual beta-amino acid **ADDA** (4E,6E-3-amino-9-methoxy-2,6,8-trimethyl-10-phenyldeca-4,6-dienoic acid) is present in most (>80%) of the known toxic penta- and heptapeptide toxin congeners. Here, we report the synthesis of two **ADDA**-**haptens**, the raising of **antibodies** to **ADDA**, and the development of a competitive indirect **ELISA** for the detection of microcystins and nodularins utilizing these **antibodies**. The assay has a limit of quantitation of 0.02-0.07 ng/mL (depending on which congeners are present), lower than the WHO-proposed guideline (1 ng/mL) for drinking water, irrespective of the sample matrix (raw water, drinking water, or pure toxin in PBS). This new **ELISA** is robust, can be performed without sample preconcentration, detects toxins in freshwater samples at lower concentrations than does the protein phosphatase inhibition assay, and shows very good cross-reactivity with all cyanobacterial cyclic peptide toxin congeners tested to date (MC-LR, -RR, -YR, -LW, -LF, 3-desmethyl-MC-LR, 3-desmethyl-MC-RR, and nodularin).

*microcystin*

L11 ANSWER 24 OF 72 ANABSTR COPYRIGHT 2003 RSC on STN DUPLICATE 3  
AB A monoclonal **antibody** (clone AD4G2) was generated against a common part of microcystins and nodularins, the unusual amino-acid **Adda**, ((2S,3S,8S,9S))- 3-amino-9-methoxy-2,6,8-trimethyl-10-phenyldeca-4E,6E-dienoic acid). A direct competitive **ELISA** based on this **antibody** was developed and the cross-reactivity pattern was measured. Different toxins showed a very similar response. The assay provides therefore a sum parameter of microcystins, nodularins and peptide fragments containing **Adda**. The IC50 for microcystin-LR was 0.33 .mu.g/l which leads to a detection limit of 0.07 .mu.g/l. This is well below the concentration of 1 .mu.g/l proposed by the World Health Organisation (WHO) as the limit for drinking water. Microcystin-LR spiked water samples in the concentration range between 0.1 and 1 .mu.g/l were measured and a mean recovery of 113 .+-. 23% was found. The **antibody** is well suited for the determination of microcystins in drinking as well as surface water.

L11 ANSWER 25 OF 72 CAPLUS COPYRIGHT 2003 ACS on STN  
ACCESSION NUMBER: 2002:4615 CAPLUS  
DOCUMENT NUMBER: 136:212002  
TITLE: Development of a direct competitive microcystin **immunoassay** of broad specificity  
AUTHOR(S): Weller, Michael G.; Zeck, Anne; Eikenberg, Anja; Nagata, Satoshi; Ueno, Yoshio; Niessner, Reinhard  
CORPORATE SOURCE: Institute of Hydrochemistry, Technical University of Munich, Munchen, D-81377, Germany  
SOURCE: Analytical Sciences (2001), 17(12), 1445-1448  
CODEN: ANSCEN; ISSN: 0910-6340  
PUBLISHER: Japan Society for Analytical Chemistry  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB The monoclonal **antibody** M8H5 was used in a direct competitive enzyme **immunoassay** performed in microtitration plates. M8H5 **antibody** was produced with a microcystin-LR-**BSA** **immunogen** in BALB/c mice. This **immunoassay** showed a very even cross-reactivity pattern for microcystins and nodularin, suggesting that none of the cross-reactivities (except the non-toxic amino acid **Adda**) was significantly different from 100%. Thus, the assay is well suited to det. the sum concns. of microcystins in water samples. The detection limit of around 0.05 .mu.g/L is low enough to allow the testing for violations of the proposed WHO level of 1 .mu.g/L for microcystin-LR in drinking water. M8H5 is quite robust against matrix effects, and thus should not be prone to false pos. values.

REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 26 OF 72 CAPLUS COPYRIGHT 2003 ACS on STN  
ACCESSION NUMBER: 2001:682064 CAPLUS  
DOCUMENT NUMBER: 136:257933  
TITLE: Stable genetic transformation of tomato plastids and expression of a foreign protein in fruit  
AUTHOR(S): Ruf, Stephanie; Hermann, Marita; Berger, Irving J.; Carrer, Helaine; Bock, Ralph  
CORPORATE SOURCE: Inst. Biol. III, Univ. Freiburg, Freiburg, D-79104, Germany  
SOURCE: Nature Biotechnology (2001), 19(9), 870-875  
CODEN: NABIF9; ISSN: 1087-0156

PUBLISHER: Nature America Inc.  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Transgenic chloroplasts offer unique advantages in plant biotechnol., including high-level foreign protein expression, absence of epigenetic effects, and gene containment due to the lack of transgene transmission through pollen. However, broad application of plastid genome engineering in biotechnol. has been largely hampered by both the lack of chloroplast transformation systems for major crop plants and the usually low plastid gene expression levels in nongreen tissues such as fruits, tubers, and other storage organs. Here we describe the development of a plastid transformation system for tomato, *Lycopersicon esculentum*. This is the first report on the generation of fertile transplastomic plants in a food crop with an edible fruit. We show that chromoplasts in the tomato fruit express the trans gene to ~50% of the expression levels in leaf chloroplasts. Given the generally very high foreign protein accumulation rates that can be achieved in transgenic chloroplasts (>40% of the total sol. protein), this system paves the way to efficient prodn. of edible vaccines, pharmaceuticals, and **antibodies** in tomato.

REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 27 OF 72 CEABA-VTB COPYRIGHT 2003 DECHEMA on STN  
ACCESSION NUMBER: 2003(02):5049 CEABA-VTB FILE SEGMENT B  
TITLE: Detecting cyanotoxins in water  
Nachweisverfahren und Nachweisgrenze fuer Cyanotoxine  
im Wasser  
AUTHOR: Dietrich, D.R.  
CORPORATE SOURCE: Univ. de Constance, Jacob-Burckhardt-Str. 25, PO Box  
X918, D-78457 Constance, DE  
SOURCE: Biofutur (2001)(209), 44-47  
CODEN: BIOFEM ISSN: 0294-3506  
DOCUMENT TYPE: Journal  
LANGUAGE: French

AB Cyanobacterial algae in water produce toxins, especially the cyclic peptide microcystins. They are suspected of attributing to the causes of liver cancer by chronic exposure. The norm (one microgram/liter for microcystine-LR) of the Organisation mondiale de la sante (OMS) uses non-standardized analytical methods and covers only the one toxin. The analytical method cannot detect the whole group of toxins and so a detection method was developed for measurement in the range of 0.02-0.07 ng/ml that ensures measurement of all microcystins and nodularines. The research focussed on the common structural unit of all the cyclic peptides. Starting point was the amino acid called **ADDA** that synthesized **antigens**, the production of the specific **antibodies** was obtained. The method developed showed a good sensitivity for all tested toxins. For the European Union a modified norm is necessary. (Totzauer, Erika)

L11 ANSWER 28 OF 72 CAPLUS COPYRIGHT 2003 ACS on STN  
ACCESSION NUMBER: 2000:129502 CAPLUS  
DOCUMENT NUMBER: 132:177722  
TITLE: A method for detecting or measuring an environmental  
pollutant using anti-(**antigen-  
antibody** conjugate) **antibody**  
INVENTOR(S): Ueno, Yoshio; Nagata, Satoshi  
PATENT ASSIGNEE(S): Mitsubishi Kagaku Iri K. K., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000055917	A2	20000225	JP 1998-221528	19980805
PRIORITY APPLN. INFO.:			JP 1998-221528	19980805

AB An **immunoassay** method excellent in its specificity and sensitivity is described for detecting or measuring an environmental pollutant (e.g., microcystin) using anti-(**antigen-antibody** conjugate) **antibody**, i.e., **antibody** to a conjugate between an environmental pollutant and an **antibody** to an environmental pollutant. ~~Monoclonal antibody specific to the conjugate between microcystin-LR (MCLR) and the monoclonal antibody to MCLR was produced, and sandwich ELISA was established to assay MCLR using this antibody.~~

L11 ANSWER 29 OF 72 PCTFULL COPYRIGHT 2003 Univention on STN  
 ACCESSION NUMBER: 2000012519 PCTFULL ED 20020515  
 TITLE (ENGLISH): PHOSPHOPOXIDES, METHOD FOR MAKING SAME AND USES  
 TITLE (FRENCH): PHOSPHOPOXYDES, PROCEDE DE FABRICATION ET APPLICATIONS  
 INVENTOR(S): BELMANT, Christian;  
 FOURNIE, Jean-Jacques;  
 BONNEVILLE, Marc;  
 PEYRAT, Marie-Alix  
 PATENT ASSIGNEE(S): INSTITUT NATIONAL DE LA SANTE ET DE LA RECHERCHE  
 MEDICALE;  
 BELMANT, Christian;  
 FOURNIE, Jean-Jacques;  
 BONNEVILLE, Marc;  
 PEYRAT, Marie-Alix  
 LANGUAGE OF PUBL.: French  
 DOCUMENT TYPE: Patent  
 PATENT INFORMATION:

NUMBER	KIND	DATE
WO 2000012519	A1	20000309

## DESIGNATED STATES

W:

AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE  
 DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE  
 KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO  
 NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US  
 UZ VN YU ZA ZW GH GM KE LS MW SD SL SZ UG ZW AM AZ BY  
 KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE  
 IT LU MC NL PT SE BF BJ CF CG CI CM GA GN GW ML MR NE  
 SN TD TG

APPLICATION INFO.: WO 1999-FR2057 A 19990827  
 PRIORITY INFO.: FR 1998-98/10914 19980901

ABEN The invention concerns compounds comprising at least a phosphoepoxide group of formula (I) wherein: R1 is selected among -CH3 and -CH2-CH3; Cat+ is an organic or mineral cation; n is an integer between 2 and 20. The invention also concerns their preparation

methods and applications, in particular in therapy for activating T $\gamma$ ; $\delta$ ;2 lymphocytes of primates.

ABFR L'invention concerne des composés comprenant au moins un groupement phosphoépoxyde de formule (I) ou R1 est choisi parmi -CH3 et -CH2-CH3, Cat+ est un cation organique ou minéral, n est un nombre entier compris entre 2 et 20, leurs procédés de préparation, et leurs applications, notamment thérapeutiques et pour activer les lymphocytes T $\gamma$ ; $\delta$ ;2 des primates.

L11 ANSWER 30 OF 72 PCTFULL COPYRIGHT 2003 Univentio on STN  
 ACCESSION NUMBER: 2000004023 PCTFULL ED 20020515  
 TITLE (ENGLISH): ANHYDRIDE MODIFIED CANTHARIDIN ANALOGUES USEFUL IN THE TREATMENT OF CANCER  
 TITLE (FRENCH): ANHYDRIDES ANALOGUES DE CANTHARIDINE MODIFIEE UTILES POUR TRAITER LE CANCER  
 INVENTOR(S): MCCLUSKEY, Adam;  
 SAKOFF, Jennette, A.;  
 ACKLAND, Stephen;  
 SIM, Alistair, T., R.  
 PATENT ASSIGNEE(S): THE UNIVERSITY OF NEWCASTLE RESEARCH ASSOCIATES LIMITED;  
 MCCLUSKEY, Adam;  
 SAKOFF, Jennette, A.;  
 ACKLAND, Stephen;  
 SIM, Alistair, T., R.  
 LANGUAGE OF PUBL.: English  
 DOCUMENT TYPE: Patent  
 PATENT INFORMATION:

NUMBER	KIND	DATE
WO 2000004023	A1	20000127

## DESIGNATED STATES

W:

AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK  
 EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP  
 KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL  
 PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN  
 YU ZA ZW GH GM KE LS MW SD SL SZ UG ZW AM AZ BY KG KZ  
 MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU  
 MC NL PT SE BF BJ CF CG CI CM GA GN GW ML MR NE SN TD  
 TG

APPLICATION INFO.: WO 1999-AU567 A 19990714  
 PRIORITY INFO.: AU 1998-PP 4665 19980714

ABEN Anhydride modified cantharidin analogues useful in the treatment of certain forms of cancer  
 also methods for the screening for anti-cancer activity of these analogues and/or their ability to sensitise cancer cells to cancer treatment. The modified cantharidin analogues have structure (I) or (II), wherein R1, R2, R3 and R4 are H, aryl or alkyl; X is O, N or S; Y is O, S, NH, NR; R is alkyl or aryl; A and B are H or CH3; W and Z are CHOH or C=O. These compounds inhibit protein phosphatase.

ABFR L'invention porte sur des anhydrides analogues de cantharidine modifiée utiles pour traiter



certaines formes de cancer, et sur des procedes de criblage desdits analogues pour ce qui est de leurs activites anticancereuses et/ou leur capacite de sensibilisation des cellules cancereuses a des traitements anticancereux. Les analogues de la cantharidine modifiee presentent la structure (I) ou (II) dans laquelle R1, R2, R3 et R4 sont H aryle ou alkyle; X est O, N ou S; Y est OS, NH, NR, R est aryle ou alkyle; A et B sont H ou CH3; W et Z sont CHOH ou C=O. Ces composes inhibent la phosphatase proteique.

L11 ANSWER 31 OF 72 USPATFULL on STN

ACCESSION NUMBER: 2000:94843 USPATFULL

TITLE: Rupestris stem pitting associated virus nucleic acids, proteins, and their uses

INVENTOR(S): Gonsalves, Dennis, Geneva, NY, United States

Meng, Baozhong, Geneva, NY, United States

PATENT ASSIGNEE(S): Cornell Research Foundation, Inc., Ithaca, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6093544		20000725
APPLICATION INFO.:	US 1998-81320		19980519 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-47147P	19970520 (60)
	US 1997-69902P	19971217 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Jones, W. Gary	
ASSISTANT EXAMINER:	Tung, Joyce	
LEGAL REPRESENTATIVE:	Clark & Elbing LLP	
NUMBER OF CLAIMS:	4	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	10 Drawing Figure(s); 16 Drawing Page(s)	
LINE COUNT:	6088	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to an isolated protein or polypeptide corresponding to a protein or polypeptide of a Rupestris stem pitting associated virus. The encoding DNA molecule, either alone in isolated form, in an expression system, a host cell, or a transgenic grape plant, is also disclosed. Other aspects of the present invention relate to a method of imparting Rupestris stem pitting associated virus resistance to grape plants by transforming them with the DNA molecule of the present invention, and a method of detecting the presence of a Rupestris stem pitting associated virus, such as RSPaV-1, in a sample.

L11 ANSWER 32 OF 72 USPATFULL on STN

ACCESSION NUMBER: 2000:70466 USPATFULL

TITLE: Lipid vesicles formed with alkylammonium fatty acid salts

INVENTOR(S): Hayward, James A., Stony Brook, NY, United States  
Watkins, David C., Port Jefferson, NY, United States  
Aust, Duncan T., Ridge, NY, United States

PATENT ASSIGNEE(S): Collaborative Laboratories, Inc., East Setauket, NY,  
United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6071535		20000606
APPLICATION INFO.:	US 1999-255160		19990222 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1996-594175, filed on 31 Jan 1996, now patented, Pat. No. US 5874105		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Kishore, Gollamudi S.		
LEGAL REPRESENTATIVE:	Darby & Darby		
NUMBER OF CLAIMS:	25		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	18 Drawing Figure(s); 10 Drawing Page(s)		
LINE COUNT:	837		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides for liposomes formed with alkylammonium fatty acid salts, and methods for manufacturing same. The liposomes of the invention may deliver entrapped load material or materials at the occurrence of a preset triggering condition. Preferred liposomes of the invention are cationic liposomes. The preferred liposomes of the invention are formed with alkylammonium fatty acid salts, e.g., trialkylammonium fatty acid salts of long chain amides. The liposomes of the invention are used to encapsulate both hydrophobic and hydrophilic load materials. The liposomes formed accordingly are capable of delivering their loads upon the occurrence of a trigger or control condition.

L11 ANSWER (33) OF 72 USPATFULL on STN

ACCESSION NUMBER: 2000:57603 USPATFULL

TITLE: **Immune** mediators and related methods

INVENTOR(S): Kindsvogel, Wayne, Seattle, WA, United States  
Reich, Eva Pia, Palo Alto, CA, United States  
Gross, Jane A., Seattle, WA, United States

PATENT ASSIGNEE(S): Anergis, Inc., Redwood City, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6060309		20000509
APPLICATION INFO.:	US 1997-855925		19970514 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1995-483241, filed on 7 Jun 1995, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Saunders, David		
ASSISTANT EXAMINER:	VanderVegt, F. Pierre		
LEGAL REPRESENTATIVE:	Townsend and Townsend and Crew LLP		
NUMBER OF CLAIMS:	4		
EXEMPLARY CLAIM:	1		
LINE COUNT:	1363		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method for preparing a responder cell clone that proliferates when combined with a selected **antigenic** peptide presented by a stimulator cell is disclosed. CD56 negative, CD8 negative responder

cells are isolated from peripheral blood mononucleocytes and stimulated with pulsed or primed stimulator cells. Responder cell clones from prediabetic or new onset diabetic patients which are specific for GAD peptides are also disclosed.

L11 ANSWER 34 OF 72 USPATFULL on STN

ACCESSION NUMBER: 2000:34569 USPATFULL

TITLE: Phosphatase inhibitors and methods of use thereof

INVENTOR(S): Lazo, John S., Pittsburgh, PA, United States

Rice, Robert L., Glenshaw, PA, United States

Cunningham, April, Harleysville, PA, United States

Wipf, Peter, Pittsburgh, PA, United States

PATENT ASSIGNEE(S): University of Pittsburgh, Pittsburgh, PA, United States  
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6040323		20000321
APPLICATION INFO.:	US 1997-917454		19970822 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1996-688530, filed on 30 Jul 1996, now patented, Pat. No. US 5700821		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	McKane, Joseph K.		
LEGAL REPRESENTATIVE:	Baker & Botts, LLP		
NUMBER OF CLAIMS:	3		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	10 Drawing Figure(s); 7 Drawing Page(s)		
LINE COUNT:	1202		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention is directed to compounds having the formula:  
##STR1## The invention further provides a method of making the compounds. The compounds are useful as inhibitors of protein phosphatases, for example PP1, PP2A, PP3, CDC25A and CDC25B. The invention is further directed to a method of inhibiting a protein phosphatase, a method of inhibiting cell proliferation, and pharmaceutical compositions comprising the subject compounds.

L11 ANSWER 35 OF 72 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN

ACCESSION NUMBER: 2000:509650 BIOSIS

DOCUMENT NUMBER: PREV200000509650

TITLE: Development and application of highly sensitive anti-immune complex ELISAs for microcystins in tap water.

AUTHOR(S): Tsutsumi, T. (1); Nagata, S.; Yoshida, F.; Harada, K.-I.; Ueno, Y.

CORPORATE SOURCE: (1) Division of Foods, National Institute of Health Science, 1-18-1, Kamiyoga, Setagaya-ku, Tokyo, 158-8501 Japan

SOURCE: Food and Agricultural Immunology, (September, 2000) Vol. 12, No. 3, pp. 231-241. print.  
ISSN: 0954-0105.

DOCUMENT TYPE: Article

LANGUAGE: English

SUMMARY LANGUAGE: English

AB We developed an anti-immune complex (IC) ELISA applicable to direct determination of trace amounts of microcystins (MCs).

in tap water. Comparison of two assay formats revealed that the use of anti-immune complex monoclonal **antibody** (MAB) in the coating step to trap anti-MC MAB-MC complexes improved the sensitivity as well as precision. The detection limit and quantitative range of the IC **ELISA** was 2 pg ml<sup>-1</sup> and 2-100 pg ml<sup>-1</sup> of microcystin-LR (MCLR), respectively, indicating the most sensitive of all the methods for detecting MCs reported to date. Additionally, the IC **ELISA** maintained good reliability through its quantitative range, as evidenced by low coefficients of variation (5.0-10.8 and 4.9-10.2% for intra- and interassay, respectively). The IC **ELISA** showed good cross-reactivity to microcystin-RR and microcystin-YR, suggesting major MCs found in the environment can be detected by this method. Recovery tests in which quantitative range of MCLR were added to tap water resulted in a mean recovery of 99%, with a mean standard deviation of 5.7%; therefore the IC **ELISA** performed well in the analysis of tap water samples. **ELISA** analysis of tap water samples collected in China and Japan revealed that, among 17 samples tested, two samples collected in China were positive for MCs at 4.9-14 pg ml<sup>-1</sup>. These results suggest that the newly developed IC **ELISA** can be used to monitor trace amounts of MCs in tap water.

L11 ANSWER **36** OF 72 AQUASCI COPYRIGHT (C) 2003 FAO (on behalf of the ASFA Advisory Board). All Rights Reserved. on STN DUPLICATE 4  
 ACCESSION NUMBER: 2001:10280 AQUASCI  
 DOCUMENT NUMBER: ASFA1 2001; ASFA3 2001  
 TITLE: Co-Occurrence of Non-toxic (Cyanopeptolin) and Toxic (Microcystin) Peptides in a Bloom of Microcystis sp. from a Chilean Lake  
 AUTHOR: Neumann, U.; Campos, V.; Cantarero, S.; Urrutia, H.; Heinze, R.; Weckesser, J.; Erhard, M.  
 CORPORATE SOURCE: Universitaet Freiburg, Institut fuer Biologie II, Mikrobiologie, Schaenzlestrasse 1, D - 79104 Freiburg i.Br., Germany  
 SOURCE: Systematic and Applied Microbiology [Syst. Appl. Microbiol.], (20000600) vol. 23, no. 2, pp. 191-197. ISSN: 0723-2020.  
 DOCUMENT TYPE: Journal  
 FILE SEGMENT: ASFA1; ASFA3  
 LANGUAGE: English  
 SUMMARY LANGUAGE: English

AB A cyanobacterial bloom occurring in 1998 in lake Tres Pascualas (Concepcion/Chile) was found to be dominated by Microcystis sp. The bloom contained both non-toxic (cyanopeptolin-type) and hepatotoxic (microcystin-type) peptides. Cyanopeptolin structure of the non-toxic peptides (called cyanopeptolin VW-1 and VW-2, respectively) was revealed by matrix assisted laser desorption ionization mass spectrometry (MALDI-TOF-MS) of whole cells, showing dominant molecular ions at m/z = 975 and m/z 995, respectively. On post source decay (PSD), both cyanopeptolins showed fragments deriving from Ahp-Phe-MTyr (3-amino-6-hydroxy-2-piperidone), the characteristic partial structure of cyanopeptolins. The amounts of each of the two cyanopeptolins could only roughly be estimated to be >0.1% of bloom material dry weight. In addition the blooms contained microcystins (20 µg/g bloom dry weight as determined by RP-HPLC, 13 µg/g according to **ELISA** determination). MALDI-TOF-MS revealed several structural variants of microcystin: MCYST-RR (microcystin with Arg and Arg, indicated by m/z 1,038 and confirmed by PSD revealing a m/z = 135 fragment deriving from

[the **Adda** side chain, MCYST-FR (microcystin with Phe and Arg, indicated by m/z = 1,015). The presence of [Asp super((3))]-MCYST-LR (microcystin with Leu and Arg, Asp non-methylated, indicated by m/z 981), and [Asp super((3))]-MCYST-YR

L11 ANSWER 37, OF 72 PCTFULL COPYRIGHT 2003 Univentio on STN  
 ACCESSION NUMBER: 1999033982 PCTFULL ED 20020515  
 TITLE (ENGLISH): HUMAN GENES AND GENE EXPRESSION PRODUCTS I  
 TITLE (FRENCH): GENES HUMAINS ET PRODUITS D'EXPRESSION GENIQUE I  
 INVENTOR(S): WILLIAMS, Lewis, T.;

ESCOBEDO, Jaime;  
 INNIS, Michael, A.;  
 GARCIA, Pablo, Dominguez;  
 SUDDUTH-KLINGER, Julie;  
 REINHARD, Christoph;  
 GIESE, Klaus;  
 RANDAZZO, Filippo;  
 KENNEDY, Giulia, C.;  
 POT, David;  
 KASSAM, Altaf;  
 LAMSON, George;  
 DRMANAC, Radoje;  
 CRKVENJAKOV, Radomir;  
 DICKSON, Mark;  
 DRMANAC, Snezana;  
 LABAT, Ivan;  
 LESHKOWITZ, Dena;  
 KITA, David;  
 GARCIA, Veronica;  
 JONES, Lee, William;  
 STACHE-CRAIN, Birgit  
 CHIRON CORPORATION;  
 HYSEQ INC.

PATENT ASSIGNEE(S):

LANGUAGE OF PUBL.: English

DOCUMENT TYPE:

Patent

PATENT INFORMATION:

NUMBER	KIND	DATE
WO 9933982	A2	19990708

DESIGNATED STATES

W:

AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE  
 ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR  
 KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT  
 RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW  
 GH GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM  
 AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE  
 BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

APPLICATION INFO.:

WO 1998-US27610 A 19981222

PRIORITY INFO.:

US 1997-60/068,755 19971223  
 US 1998-60/080,664 19980403  
 US 1998-60/105,234 19981021  
 US 1998-60/105,877 19981027  
 US 1998-09/217,471 19981221

ABEN This invention relates to novel human polynucleotides and variants thereof, their encoded polypeptides and variants thereof, to genes corresponding to these polynucleotides and to proteins

expressed by the genes. The invention also relates to diagnostic and therapeutic agents employing such novel human polynucleotides, their corresponding genes or gene products, e.g., these genes and proteins, including probes, antisense constructs, and **antibodies**

ABFR Cette invention porte sur de nouveaux polynucleotides humains et des variantes de ceux-ci, sur leurs polypeptides codes et les variantes de ceux-ci, sur des genes correspondant a ces polynucleotides et sur des proteines exprimees par ces genes. L'invention porte egalement sur des agents diagnostiques et therapeutiques utilisant ces nouveaux polynucleotides humains, sur leurs genes ou produits geniques correspondants tels que ces genes et proteines, y compris des sondes, des produits de recombinaison antisens et des anticorps.

L11 ANSWER 38 OF 72 USPATFULL on STN  
 ACCESSION NUMBER: 1999:117355 USPATFULL  
 TITLE: Predicting folded structures of proteins  
 INVENTOR(S): Benner, Steven Albert, Hadlaubstrasse 151, CH-8006 Zurich, Switzerland

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5958784		19990928
APPLICATION INFO.:	US 1992-857224		19920325 (7)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Redding, David A.		
NUMBER OF CLAIMS:	2		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	28 Drawing Figure(s); 28 Drawing Page(s)		
LINE COUNT:	8856		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method is presented for predicting the folded structure of proteins that comprises obtaining an alignment of the sequences of a set of homologous proteins, using patterns of conservation and variation of the sequence between proteins with clearly defined evolutionary relationships to assign positions in the alignment to the surface of the folded structure, the inside of the folded structure, active site, or parsing segments, assigning secondary structures by identifying periodicity in said assignments, and then assembling the secondary structural units into a globular form using distance constraints imposed by disulfide bridges, active site assignments, and covariation analysis.

L11 ANSWER 39 OF 72 USPATFULL on STN  
 ACCESSION NUMBER: 1999:81851 USPATFULL  
 TITLE: Phosphatase inhibitors and methods of use thereof  
 INVENTOR(S): Lazo, John S., Pittsburgh, PA, United States  
 Rice, Robert L., Glenshaw, PA, United States  
 Cunningham, April, Harleysville, PA, United States  
 Wipf, Peter, Pittsburgh, PA, United States  
 PATENT ASSIGNEE(S): University of Pittsburgh, Pittsburgh, PA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5925660		19990720
APPLICATION INFO.:	US 1997-917016		19970822 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1996-688530, filed on 30 Jul 1996, now patented, Pat. No. US 5700821		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Goldberg, Jerome D.		
LEGAL REPRESENTATIVE:	Baker & Botts		
NUMBER OF CLAIMS:	5		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	10 Drawing Figure(s); 7 Drawing Page(s)		
LINE COUNT:	1207		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention is directed to compounds having the formula: ##STR1## The invention further provides a method of making the compounds. The compounds are useful as inhibitors of protein phosphatases, for example PP1, PP2A, PP3, CDC25A and CDC25B. The invention is further directed to a method of inhibiting a protein phosphatase, a method of inhibiting cell proliferation, and pharmaceutical compositions comprising the subject compounds.

L11 ANSWER 40 OF 72 USPATFULL on STN

ACCESSION NUMBER: 1999:24331 USPATFULL

TITLE: Lipid vesicles formed with alkylammonium fatty acid salts

INVENTOR(S): Watkins, David C., Port Jefferson Station, NY, United States

Vichroski, Thomas J., Bayport, NY, United States

Hayward, James A., Stony Brook, NY, United States

PATENT ASSIGNEE(S): Collaborative Laboratories, Inc., East Setauket, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5874105		19990223
APPLICATION INFO.:	US 1996-594175		19960131 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Kishore, Gollamudi S.		
LEGAL REPRESENTATIVE:	Darby & Darby		
NUMBER OF CLAIMS:	25		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	10 Drawing Figure(s); 5 Drawing Page(s)		
LINE COUNT:	594		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A liposome for use in encapsulating both hydrophobic and hydrophilic substances (i.e., a "payload"), is disclosed which is capable of delivering their load upon the occurrence of a trigger or control condition. The liposomes are formed to stably encapsulate a particular active agent to form a delivery vehicle for the agent. The liposomes of the delivery vehicle are stable in a particular environment but become unstable or permeable if passed from the stable environment (e.g., characteristic of a particular pH and/or temperature and/or ionic strength) to a changed or unstable environment, thereby delivering their payload.

L11 ANSWER 41 OF 72 USPATFULL on STN  
 ACCESSION NUMBER: 1999:1833 USPATFULL  
 TITLE: Phosphatase inhibitors and methods of use thereof  
 INVENTOR(S): Lazo, John S., Pittsburgh, PA, United States  
 Rice, Robert L., Glenshaw, PA, United States  
 Cunningham, April, Harleysville, PA, United States  
 Wipf, Peter, Pittsburgh, PA, United States  
 PATENT ASSIGNEE(S): University of Pittsburgh, Pittsburgh, PA, United States  
 (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5856506		19990105
APPLICATION INFO.:	US 1997-917453		19970822 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1996-688530, filed on 30 Jul 1996, now patented, Pat. No. US 5700821		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Shah, Mukund J.		
ASSISTANT EXAMINER:	Sripada, Pavanaram K.		
LEGAL REPRESENTATIVE:	Baker & Botts, LLP		
NUMBER OF CLAIMS:	6		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	13 Drawing Figure(s); 7 Drawing Page(s)		
LINE COUNT:	1228		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention is directed to compounds having the formula:  
 ##STR1## The invention further provides a method of making the compounds. The compounds are useful as inhibitors of protein phosphatases, for example PP1, PP2A, PP3, CDC25A and CDC25B. The invention is further directed to a method of inhibiting a protein phosphatase, a method of inhibiting cell proliferation, and pharmaceutical compositions comprising the subject compounds.

L11 ANSWER 42 OF 72 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN  
 DUPLICATE 5

ACCESSION NUMBER: 1999:496396 BIOSIS  
 DOCUMENT NUMBER: PREV199900496396  
 TITLE: Multiple interactions of HIV-I Tat protein with size-defined heparin oligosaccharides.  
 AUTHOR(S): Rusnati, Marco; Tulipano, Giovanni; Spillmann, Dorothe; Tanghetti, E.; Oreste, Pasqua; Zoppetti, Giorgio; Giacca, Mauro; Presta, Marco (1)  
 CORPORATE SOURCE: (1) Unit of General Pathology and Immunology, Dept. of Biomedical Sciences and Biotechnology, University of Brescia, Via Valsabbina 19, 25123, Brescia Italy  
 SOURCE: Journal of Biological Chemistry, (Oct. 1, 1999) Vol. 274, No. 40, pp. 28198-28205.  
 ISSN: 0021-9258.  
 DOCUMENT TYPE: Article  
 LANGUAGE: English  
 SUMMARY LANGUAGE: English

AB Tat protein, a transactivating factor of the human immunodeficiency virus type I, acts also as an extracellular molecule. Heparin affects the bioavailability and biological activity of extracellular Tat (Rusnati, M., Coltrini, D., Oreste, P., Zoppetti, G.,



Albini, A., Noonan, D., D'Adda di Fagagna, F., Giacca, M., and Presta, M. (1997) J. Biol. Chem. 272, 11313-11320). Here, a series of homogeneously sized, 3H-labeled heparin fragments were evaluated for their capacity to bind to free glutathione S-transferase (GST)-Tat protein and to immobilized GST-Tat. Hexasaccharides represent the minimum sized heparin fragments able to interact with GST-Tat at physiological ionic strength. Also, the affinity of binding increases with increasing the molecular size of the oligosaccharides, with large fragments (gtoreql8 saccharides) approaching the affinity of full-size heparin. 6-Mer heparin binds GST-Tat with a dissociation constant (Kd) equal to 0.7 +/- 0.4 muM and a molar oligosaccharide:GST-Tat ratio of about 1:1. Interaction of GST-Tat with 22-mer or full-size heparin is consistent instead with two-component binding. At subsaturating concentrations, a single molecule of heparin interacts with 4-6 molecules of GST-Tat with high affinity (Kd values in the nanomolar range of concentration); at saturating concentrations, heparin binds GST-Tat with lower affinity (Kd values in the micromolar range of concentration) and a molar oligosaccharide:GST-Tat ratio of about 1:1. In agreement with the binding data, a positive correlation exists between the size of heparin oligosaccharides and their capacity to inhibit cell internalization, long terminal repeat-transactivating activity of extracellular Tat in HL3T1 cells, and its mitogenic activity in murine adenocarcinoma T53 Tat-less cells. The data demonstrate that the modality of heparin-Tat interaction is strongly affected by the size of the saccharide chain. The possibility of establishing multiple interactions increases the affinity of large heparin fragments for Tat protein and the capacity of the glycosaminoglycan to modulate the biological activity of extracellular Tat.

L11 ANSWER 43 OF 72 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN  
DUPLICATE 6

ACCESSION NUMBER: 1999:356575 BIOSIS

DOCUMENT NUMBER: PREV199900356575

TITLE: Human **immunodeficiency** virus type 1 Tat protein  
activates transcription factor NF-kappaB through the  
cellular interferon-inducible, double-stranded  
RNA-dependent protein kinase, PKR.

AUTHOR(S): Demarchi, Francesca; Gutierrez, Maria Ines; Giacca, Mauro  
(1)

CORPORATE SOURCE: (1) Molecular Medicine Laboratory, ICGEB, Padriciano, 99,  
34012, Trieste Italy

SOURCE: Journal of Virology, (Aug., 1999) Vol. 73, No. 8, pp.  
7080-7086.  
ISSN: 0022-538X.

DOCUMENT TYPE: Article

LANGUAGE: English

SUMMARY LANGUAGE: English

AB The transactivator protein of human **immunodeficiency** virus type 1 (HIV-1) (Tat) is a powerful activator of nuclear factor-kappaB (NF-kappaB), acting through degradation of the inhibitor IkappaB-alpha (F. Demarchi, F. d'Adda di Fagagna, A. Falaschi, and M. Giacca, J. Virol. 70:4427-4437, 1996). Here, we show that this activity of Tat requires the function of the cellular interferon-inducible protein kinase PKR. Tat-mediated NF-kappaB activation and transcriptional induction of the HIV-1 long terminal repeat were impaired in murine cells in which the PKR gene was knocked out. Both functions were restored by cotransfection of Tat with the cDNA for PKR. Expression of a dominant-negative mutant of PKR specifically reduced the levels of Tat transactivation in different

human cell types. Activation of NF-kappaB by Tat required integrity of the basic domain of Tat; previous studies have indicated that this domain is necessary for specific Tat-PKR interaction.

L11 ANSWER 44 OF 72 PROMT COPYRIGHT 2003 Gale Group on STN

ACCESSION NUMBER: 2000:431562 PROMT  
 TITLE: Product Times.  
 AUTHOR(S): Walsh, Tina  
 SOURCE: Electronics Times, (2 Feb 1998) pp. 27.  
 ISSN: 0142-3118.  
 PUBLISHER: Miller Freeman UK Ltd  
 DOCUMENT TYPE: Newsletter  
 LANGUAGE: English  
 WORD COUNT: 4365  
 \*FULL TEXT IS AVAILABLE IN THE ALL FORMAT\*

AB RF connectors can handle up to 100kW  
 THIS IS THE FULL TEXT: COPYRIGHT 1998 Miller Freeman UK Ltd

Subscription: 85.00 British pounds per year. Published weekly. Sovereign Way, Tonbridge, Kent TN9 1RW., United Kingdom

L11 ANSWER 45 OF 72 PCTFULL COPYRIGHT 2003 Univentio on STN

ACCESSION NUMBER: 1998052964 PCTFULL ED 20020514  
 TITLE (ENGLISH): i(RUPESTRIS) STEM PITTING ASSOCIATED VIRUS NUCLEIC ACIDS, PROTEINS, AND THEIR USES  
 TITLE (FRENCH): PROTEINES ET ACIDES NUCLEIQUES DE VIRUS ASSOCIE AU BOIS STRIE DE LA VIGNE, ET LEURS UTILISATIONS  
 INVENTOR(S): GONSALVES, Dennis;  
 MENG, Baozhong  
 PATENT ASSIGNEE(S): CORNELL RESEARCH FOUNDATION, INC.  
 LANGUAGE OF PUBL.: English  
 DOCUMENT TYPE: Patent  
 PATENT INFORMATION:

NUMBER	KIND	DATE
WO 9852964	A1	19981126

#### DESIGNATED STATES

W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE  
 ES FI GB GE GH GM GW HU ID IL IS JP KE KG KP KR KZ LC  
 LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU  
 SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW GH GM  
 KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE  
 CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ  
 CF CG CI CM GA GN ML MR NE SN TD TG

APPLICATION INFO.: WO 1998-US10391 A 19980520  
 PRIORITY INFO.: US 1997-60/047,147 19970520  
 US 1997-60/069,902 19971217

ABEN The present invention relates to an isolated protein or polypeptide corresponding to a protein or polypeptide of a i(Rupestris) stem pitting associated virus. The encoding DNA molecule, either alone in isolated form, in an expression system, a host cell, or a transgenic grape plant, is also disclosed. Other aspects of the present invention relate to a method of imparting i(Rupestris) stem pitting associated virus resistance to grape plants by transforming them

with the DNA molecule of  
the present invention, and a method of detecting the presence of a  
i(Rupestris) stem pitting  
associated virus, such as RSPaV-1, in a sample.

ABFR La presente invention concerne une proteine ou un polypeptide isoles  
correspondant a une  
proteine ou un polypeptide de virus associe au bois strie de la vigne  
i(Rupestris). La presente  
invention concerne egalement la molecule d'ADN codant, seule sous forme  
isolee, dans un systeme  
d'expression, une cellule hote ou un plant de vigne transgenique. Selon  
d'autres aspects,  
l'invention concerne un procede qui confere une resistance au virus  
associe au bois strie de la  
vigne i(Rupestris )a des vignes en les transformant a l'aide de la  
molecule d'ADN et un procede de  
detection de la presence du virus associe au bois strie de la vigne  
i(Rupestris) tel que RSPaV-1,  
dans un echantillon.

L11 ANSWER 46 OF 72 PCTFULL COPYRIGHT 2003 Univentio on STN  
ACCESSION NUMBER: 1998004587 PCTFULL ED 20020514  
TITLE (ENGLISH): POLYPEPTIDE COFACTORS THAT MEDiate 'alpha'-TUBULIN AND  
'beta'-TUBULIN FOLDING  
TITLE (FRENCH): COFACTEURS POLYPEPTIDIQUES POUVANT INDUIRE LE  
REPLIEMENT DES TUBULINES 'alpha' ET 'beta'  
INVENTOR(S): COWAN, Nicholas, J.  
PATENT ASSIGNEE(S): NEW YORK UNIVERSITY  
LANGUAGE OF PUBL.: English  
DOCUMENT TYPE: Patent  
PATENT INFORMATION:

NUMBER	KIND	DATE
WO 9804587	A1	19980205

## DESIGNATED STATES

W: AU CA JP MX AT BE CH DE DK ES FI FR GB GR IE IT LU MC  
NL PT SE

APPLICATION INFO.: WO 1997-US14076 A 19970725  
PRIORITY INFO.: US 1996-60/023,089 19960725

ABEN An object of this invention is to provide protein cofactors required for  
proper folding of the  
structural molecules .alpha.- and .beta.-tubulin. A further object of  
this invention is to provide  
nucleic acids which encode tubulin-folding cofactors and methods for the  
production of such protein  
cofactors. Yet, a further object of the invention is to provide methods  
for identifying agents which  
can interfere with the folding of 'alpha'- and 'beta'-tubulins so that  
cell division can be  
modulated.

ABFR L'invention porte sur des cofacteurs de proteines necessaires au  
repliement correct des  
molecules structurelles tubulines 'alpha' et 'beta', elle porte  
egalement sur des acides nucleiques  
codant pour les cofacteurs de repliement des tubulines, et sur des  
procedes d'obtention desdits  
cofacteurs. L'invention porte en outre sur des methodes d'identification

d'agents pouvant interferer  
avec le repliement des tubulines 'alpha' et 'beta' de maniere a pouvoir  
moduler la division  
cellulaire.

L11 ANSWER 47 OF 72 PCTFULL COPYRIGHT 2003 Univentio on STN  
ACCESSION NUMBER: 1998004257 PCTFULL ED 20020514  
TITLE (ENGLISH): PHOSPHATASE INHIBITORS AND METHODS OF USE THEREOF  
TITLE (FRENCH): INHIBITEURS DE PHOSPHATASE ET LEUR UTILISATION  
INVENTOR(S): LAZO, John, S.;

RICE, Robert, L.;

CUNNINGHAM, April;

WIPF, Peter

PATENT ASSIGNEE(S): UNIVERSITY OF PITTSBURGH;

LAZO, John, S.;

RICE, Robert, L.;

CUNNINGHAM, April;

WIPF, Peter

LANGUAGE OF PUBL.: English  
DOCUMENT TYPE: Patent

## PATENT INFORMATION:

NUMBER	KIND	DATE
WO 9804257	A1	19980205

## DESIGNATED STATES

W:

AL AU BA BB BG BR CA CN CU CZ EE GE HU IL IS JP KP KR  
LC LK LR LT LV MG MK MN MX NO NZ PL RO SG SI SK TR TT  
UA US UZ VN GH KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD  
RU TJ TM AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL  
PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG

APPLICATION INFO.: WO 1997-US13408 A 19970730

PRIORITY INFO.: US 1996-8/688,530 19960730

ABEN The present invention is directed to compounds having formula (I),  
wherein R, R' and R'' are  
the same or different and are preferably hydrophobic groups, Z  
represents one or two bivalent  
segments and Y is H or is absent when Z represents two bivalent  
segments. R' may be the same or  
different as R, R' and R'', and is absent when Z represents two  
bivalent segments. The invention  
further provides a method of making compounds according to formula (I).  
The compounds are useful as  
inhibitors of protein phosphatases, for example PP1, PP2A, PP3, CDC25A,  
CDC25B and CDC25C. The  
invention is further directed to a method of inhibiting a protein  
phosphatase, a method of  
inhibiting cell proliferation, and pharmaceutical compositions  
comprising the subject compounds.

ABFR L'invention concerne des composes representes par la formule (I) dans  
laquelle R, R' et R''  
sont semblables ou differents et representent, de preference, des  
groupes hydrophobes; Z represente  
un ou deux segments bivalents et Y represente H ou est absent quand Z  
represente deux segments  
bivalents. R'' peut etre semblable a R, R' et R'' ou different de ces  
derniers et est absent quand  
Z represente deux segments bivalents. L'invention concerne egalement un

procede de preparation de  
composes selon la formule I. Ces composes sont utiles en tant  
qu'inhibiteurs de proteines  
phosphatases, par exemple, PP1, PP2A, PP3, CDC25A, CDC25B et CDC25C.  
Elle concerne, de plus, un  
procede servant a inhiber une proteine phosphatase, un procede servant a  
inhiber la proliferation  
cellulaire, ainsi que des compositions pharmaceutiques contenant ces  
composes.

L11 ANSWER 48 OF 72 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN  
DUPLICATE 7

ACCESSION NUMBER: 1998:342089 BIOSIS

DOCUMENT NUMBER: PREV199800342089

TITLE: The basic domain in HIV-1 Tat protein as a target for  
polysulfonated heparin-mimicking extracellular Tat  
antagonists.

AUTHOR(S): Rusnati, Marco; Tulipano, Giovanni; Urbinati, Chiara;  
Tanghetti, Elena; Giuliani, Roberta; Giacca, Mauro; Ciomei,  
Marina; Corallini, Alfredo; Presta, Marco (1)

CORPORATE SOURCE: (1) Dep. Biomedical Sci. Biotechnol., Via Valsabbina 19,  
25123 Brescia Italy

SOURCE: Journal of Biological Chemistry, (June 26, 1998) Vol. 273,  
No. 26, pp. 16027-16037.  
ISSN: 0021-9258.

DOCUMENT TYPE: Article

LANGUAGE: English

AB Heparin binds extracellular HIV-1 Tat protein and modulates its HIV long  
terminal repeat (LTR)-transactivating activity (M. Rusnati, D. Coltrini,  
P. Oreste, G. Zoppetti, A. Albini, D. Noonan, F. d'Adda di  
Fagagna, M. Giacca, and M. Presta (1997) J. Biol. Chem. 272, 11313-11320).  
On this basis, the glutathione S-transferase (GST)-TatR49/52/53/55/56/57A  
mutant, in which six arginine residues within the basic domain of Tat were  
mutagenized to alanine residues, was compared with GST-Tat for its  
capacity to bind immobilized heparin. Dissociation of the  
GST-TatR49/52/53/55/56/57A-heparin complex occurred at ionic strength  
significantly lower than that required to dissociate the GST-Tat-heparin  
complex. Accordingly, heparin binds immobilized GST-Tat and GST-  
TatR49/52/53/55/56/57A with a dissociation constant equal to 0.3 and 1.0  
μM, respectively. Also, the synthetic basic domain Tat-(41-60) competes  
with GST-Tat for heparin binding. Suramin inhibits (3H)heparin/Tat  
interaction, 125I-GST-Tat internalization, and the LTR-transactivating  
activity of extracellular Tat in HL3T1 cells and prevents 125I-GST-Tat  
binding and cell proliferation in Tat-overexpressing T53 cells. The  
suramin derivative 14CPNU 145156E binds immobilized GST-Tat with a  
dissociation constant 5 times higher than heparin and is unable to bind  
GST-TatR49/52/53/55/56/57A. Although heparin was an antagonist more potent  
than suramin, modifications of the backbone structure in selected suramin  
derivatives originated Tat antagonists whose potency was close to that  
shown by heparin. In conclusion, suramin derivatives bind the basic domain  
of Tat, prevent Tat/heparin and Tat/cell surface interactions, and inhibit  
the biological activity of extracellular Tat. Our data demonstrate that  
tailored polysulfonated compounds represent potent extracellular Tat  
inhibitors of possible therapeutic value.

L11 ANSWER 49 OF 72 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1998:303752 CAPLUS

DOCUMENT NUMBER: 129:77642  
 TITLE: Anti-idiotypic monoclonal **antibodies** against anti-microcystin **antibody** and their use in enzyme **immunoassay**  
 AUTHOR(S): **Ishitsumi, Tomoaki**; Nagata, Satoshi; Yoshida, Fuyuko; Ueno, Yoshio  
 CORPORATE SOURCE: Department of Toxicology and Microbial Chemistry, Faculty of Pharmaceutical Sciences, Science University of Tokyo, Tokyo, 162, Japan  
 SOURCE: **Toxicol. (1998), 36(2), 235-245**  
 CODEN: TOXIA6; ISSN: 0041-0101  
 PUBLISHER: Elsevier Science Ltd.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB The prodn. of anti-idiotypic MABs (MAB-ids) which react with MAB-mc and their use in a **ELISA** for microcystins were described. The measurement of microcystins in freshwater samples was described.  
 REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER **50** OF 72 PCTFULL COPYRIGHT 2003 Univentio on STN  
 ACCESSION NUMBER: 1997000689 PCTFULL ED 20020514  
 TITLE (ENGLISH): ANTIVIRAL AGENTS  
 TITLE (FRENCH): AGENTS ANTIVIRAUX  
 INVENTOR(S): ARAD, Shoshana;  
 HULIHEIL, Mahmoud;  
 TAL, Jacov  
 PATENT ASSIGNEE(S): BEN-GURION UNIVERSITY OF THE NEGEV RESEARCH AND DEVELOPMENT AUTHORITY;  
 ARAD, Shoshana;  
 HULIHEIL, Mahmoud;  
 TAL, Jacov  
 LANGUAGE OF PUBL.: English  
 DOCUMENT TYPE: Patent  
 PATENT INFORMATION:

NUMBER	KIND	DATE
WO 9700689	A1	19970109

## DESIGNATED STATES

W:

AL AM AT AU AZ BB BG BR BY CA CH CN CZ DE DK EE ES FI  
 GB GE HU IL IS JP KE KG KP KR KZ LK LR LS LT LU LV MD  
 MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM  
 TR TT UA UG US UZ VN KE LS MW SD SZ UG AM AZ BY KG KZ  
 MD RU TJ TM AT BE CH DE DK ES FI FR GB GR IE IT LU MC  
 NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG

APPLICATION INFO.: WO 1996-IL19 A 19960620

PRIORITY INFO.: IL 1995-114267 19950622

ABEN An antiviral composition comprises as an active ingredient an antivirally-effective amount of a red microalga polysaccharide, or a mixture of two or more red microalgae polysaccharides.

ABFR L'invention concerne une composition antivirale. Cette composition comprend comme ingredient actif une quantite, efficace contre les virus, d'un polysaccharide de micro-algue rouge, ou un melange de deux polysaccharides de micro-algues rouges ou davantage.

L11 ANSWER 51 OF 72 USPATFULL on STN  
ACCESSION NUMBER: 97:120638 USPATFULL  
TITLE: Phosphatase inhibitors and methods of use thereof  
INVENTOR(S): Lazo, John S., Pittsburgh, PA, United States  
Rice, Robert L., Glenshaw, PA, United States  
Cunningham, April, Harleysville, PA, United States  
Wipf, Peter, Pittsburgh, PA, United States  
PATENT ASSIGNEE(S): University of Pittsburgh, Pittsburgh, PA, United States  
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5700821		19971223
APPLICATION INFO.:	US 1996-688530		19960730 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	McKane, Joseph		
LEGAL REPRESENTATIVE:	Brumbaugh, Graves, Donohue & Raymond		
NUMBER OF CLAIMS:	4		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	13 Drawing Figure(s); 7 Drawing Page(s)		
LINE COUNT:	1213		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention is directed to compounds having the formula:  
##STR1## The invention further provides a method of making the  
compounds. The compounds are useful as inhibitors of protein  
phosphatases, for example PP1, PP2A, PP3, CDC25A and CDC25B. The  
invention is further directed to a method of inhibiting a protein  
phosphatase, a method of inhibiting cell proliferation, and  
pharmaceutical compositions comprising the subject compounds.

L11 ANSWER 52 OF 72 USPATFULL on STN  
ACCESSION NUMBER: 97:112583 USPATFULL  
TITLE: Huntingtin DNA, protein and uses thereof  
INVENTOR(S): MacDonald, Marcy E., Lexington, MA, United States  
Ambrose, Christine M., Charlestown, MA, United States  
Duyao, Mabel P., Cambridge, MA, United States  
Gusella, James F., Framingham, MA, United States  
PATENT ASSIGNEE(S): The General Hospital Corporation, Boston, MA, United  
States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5693757		19971202
APPLICATION INFO.:	US 1995-453265		19950530 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1994-246982, filed on 20 May 1994 which is a continuation-in-part of Ser. No. US 1993-85000, filed on 1 Jul 1993, now abandoned which is a continuation-in-part of Ser. No. US 1993-27498, filed on 5 Mar 1993, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Wax, Robert A.		
ASSISTANT EXAMINER:	Saidha, Tekchand		
LEGAL REPRESENTATIVE:	Sterne, Kessler, Goldstein & Fox PLLC		
NUMBER OF CLAIMS:	2		
EXEMPLARY CLAIM:	1		

NUMBER OF DRAWINGS: 55 Drawing Figure(s); 50 Drawing Page(s)  
LINE COUNT: 2927

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A novel gene, huntingtin, is described, encoding huntingtin protein, recombinant vectors and hosts capable of expressing huntingtin. Methods for the diagnosis and treatment of Huntington's disease are also provided.

L11 ANSWER 53 OF 72 USPATFULL on STN

ACCESSION NUMBER: 97:104320 USPATFULL

TITLE: Huntingtin DNA, protein and uses thereof

INVENTOR(S): MacDonald, Marcy E., Lexington, MA, United States  
Ambrose, Christine M., Charlestown, MA, United States  
Duyao, Mabel P., Cambridge, MA, United States  
Gusella, James F., Framingham, MA, United States

PATENT ASSIGNEE(S): The General Hospital Corporation, Boston, MA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5686288		19971111
APPLICATION INFO.:	US 1994-246982		19940520 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1993-85000, filed on 1 Jul 1993, now abandoned which is a continuation-in-part of Ser. No. US 1993-27498, filed on 5 Mar 1993, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Jagannathan, Vasu S.		
ASSISTANT EXAMINER:	Carlson, K. Cochrane		
LEGAL REPRESENTATIVE:	Sterne, Kessler, Goldstein, Fox P.L.L.C.		
NUMBER OF CLAIMS:	7		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	55 Drawing Figure(s); 50 Drawing Page(s)		
LINE COUNT:	2918		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A novel gene, huntingtin, is described, encoding huntingtin protein, recombinant vectors and hosts capable of expressing huntingtin. Methods for the diagnosis and treatment of Huntington's disease are also provided.

L11 ANSWER 54 OF 72 PCTFULL COPYRIGHT 2003 Univentio on STN

ACCESSION NUMBER: 1996040944 PCTFULL ED 20020514

TITLE (ENGLISH): FUSED SOLUBLE MHC HETERODIMER:PEPTIDE COMPLEXES AND THEIR USES

TITLE (FRENCH): COMPLEXES SOLUBLES D'HETERODIMERES DE LMH FUSIONNES ET DE PEPTIDES, ET LEUR UTILISATION

INVENTOR(S): KINDSVOGEL, Wayne;  
REICH, Eva, Pia;  
GROSS, Jane, A.;  
DESHPANDE, Shrinkant;

PATENT ASSIGNEE(S): SHEPPARD, Paul, O.  
ZYMOMETICS, INC.;  
ANERGEN, INC.

LANGUAGE OF PUBL.: English

DOCUMENT TYPE: Patent

PATENT INFORMATION:




	NUMBER	KIND	DATE
	WO 9640944	A2	19961219
DESIGNATED STATES			
W:	AL AM AT AU AZ BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU IS JP KE KG KP KR KZ LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG UZ VN KE LS MW SD SZ UG AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG		
APPLICATION INFO.:	WO 1996-US10102	A	19960607
PRIORITY INFO.:	US 1995-8/480,002		19950607
	US 1995-8/483,241		19950607
	US 1995-8/482,133		19950607
	US 1995-60/005,964		19951027
ABEN	<b>Immune</b> modulators, such as soluble, fused MHC heterodimers and soluble, fused MHC heterodimer: peptide complexes, are described. Related methods and peptides are also disclosed. In a preferred aspect, these mediators and methods are related to autoimmunity.		
ABFR	L'invention porte sur des <b>immunomodulateurs</b> tels que des complexes solubles d'heterodimeres fusionnes de CMH et de peptides, et sur des procedes et peptides associes. Dans l'une des variantes preferrees, ces mediateurs et procedes ont trait a l'autoimmunité.		
L11	ANSWER 55 OF 72 PCTFULL COPYRIGHT 2003 Univentio on STN		
ACCESSION NUMBER:	1996025704 PCTFULL ED 20020514		
TITLE (ENGLISH):	HIGH ACCURACY, AUTOMATICALLY CONTROLLED VARIABLE LINEAR SEED SPACING PLANTING APPARATUS		
TITLE (FRENCH):	SEMOIR HAUTE PRECISION, A COMMANDE AUTOMATIQUE, AVEC ESPACEMENT LINEAIRE VARIABLE DES SEMAILLES		
INVENTOR(S):	HARMS, Louis, C.; ROSENBROCK, Richard		
PATENT ASSIGNEE(S):	FLUID POWER INDUSTRIES, INC.		
LANGUAGE OF PUBL.:	English		
DOCUMENT TYPE:	Patent		
PATENT INFORMATION:			

	NUMBER	KIND	DATE
	WO 9625704	A1	19960822
DESIGNATED STATES			
W:	AM AT AU AZ BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU IS JP KE KG KP KR KZ LK LR LT LU LV MD MG MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TT UA UG UZ VN KE LS MW SD SZ UG AZ BY KG KZ RU TJ TM AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG		
APPLICATION INFO.:	WO 1996-US1880	A	19960208
PRIORITY INFO.:	US 1995-8/388,214		19950213
ABEN	A control system for a mobile planting apparatus (24) which permits discrete plant spacing to be determined and maintained independent of any wheel (6) rotation on the planting apparatus (24) or towing apparatus (8) is disclosed, having: (1) a ground speed sensor (26) wherein the rate of movement relative to the ground is determined independent of the wheel		

(6) rotation of the planting apparatus (24) or towing apparatus (8); (2) an input/display device (62) for inputting desired linear plant spacing; (3) a variable speed motor (42) for mechanically driving seed metering devices (12) on the planting apparatus (24) at varying rates independent of any wheel (6) rotation of the planting apparatus (24) or towing apparatus (8), wherein the motor (42) changes speeds in response to an electronic signal; (4) a programmable control circuit (60) communicating electronically with the input/display device (62) and ground speed sensor (26).

ABFR On decrit un systeme de commande destine a un semoir (24) mobile et permettant de determiner un espacement distinct des vegetaux et de conserver cet espacement en le rendant independant de toute rotation des roues (6) du semoir (24) ou de l'element tractant (8), ce systeme comprenant: (1) un capteur (26) de vitesse au sol dans lequel la vitesse de deplacement par rapport au sol est determinee independamment de la rotation des roues (6) du semoir (24) ou de l'element tractant (8); (2) un dispositif (62) d'entree/affichage destine a l'entree de l'espacement lineaire souhaite des vegetaux; (3) un moteur (42) a vitesse variable servant a entrainer mecaniquement des dispositifs (12) doseurs de semailles situes sur le semoir (24), a des vitesses variables, independantes de toute rotation (6) des roues du semoir (24) ou de l'element tractant (8), ce moteur (42) changeant de vitesse en reponse a un signal electronique; (4) un circuit (60) de commande programmable communiquant de facon electronique avec le dispositif (62) d'entree/affichage et le capteur (26) de vitesse au sol.

L11 ANSWER  OF 72 USPTAFULL on STN  
 ACCESSION NUMBER: 96:65440 USPTAFULL  
 TITLE: Transport protein gene from the Huntington's disease region  
 INVENTOR(S): Duyao, Mabel P., Cambridge, MA, United States  
 MacDonal, Marcy E., Lexington, MA, United States  
 Gusella, James F., Framingham, MA, United States  
 PATENT ASSIGNEE(S): The General Hospital Corporation, Boston, MA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5538844		19960723
APPLICATION INFO.:	US 1993-35928		19930323 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Wax, Robert A.		
ASSISTANT EXAMINER:	Kim, Hyosuk		
LEGAL REPRESENTATIVE:	Sterne, Kessler, Goldstein & Fox		
NUMBER OF CLAIMS:	10		
EXEMPLARY CLAIM:	1		

NUMBER OF DRAWINGS: 9 Drawing Figure(s); 8 Drawing Page(s)

LINE COUNT: 1805

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates, in general, to a novel transport protein, IT10C3. In particular, the present invention relates to nucleic acid molecules coding for IT10C3; IT10C3 polypeptides; recombinant nucleic acid molecules; cells containing the recombinant nucleic acid molecules; antisense IT10C3 nucleic acid constructs; **antibodies** having binding affinity to an IT10C3 polypeptide; hybridomas containing the **antibodies**; nucleic acid probes for the detection of IT10C3 nucleic acid; a method of detecting IT10C3 nucleic acid or polypeptide in a sample; and kits containing nucleic acid probes or **antibodies**.

L11 ANSWER **57** OF 72 AQUASCI COPYRIGHT (C) 2003 FAO (on behalf of the ASFA Advisory Board). All Rights Reserved. on STN DUPLICATE 8

ACCESSION NUMBER: 97:22826 AQUASCI

DOCUMENT NUMBER: ASFA3 1997 27-04221

TITLE: Detection and identification of metabolites of microcystins<sup>an</sup> formed in vivo in mouse and rat livers

AUTHOR: Kondo, F.; Matsumoto, H.; Yamada, S.; Ishikawa, N.; Ito, E.; Nagata, S.; Ueno, Y.; Suzuki, M.; Harada, K.

CORPORATE SOURCE: Aichi Prefect. Inst. Public Health, Tsuji-machi, Kita, Nagoya 462, Japan

SOURCE: CHEM. RES. TOXICOL., (1996) vol. 9, no. 8, pp. 1355-1359. ISSN: 0893-228X.

DOCUMENT TYPE: Journal

FILE SEGMENT: ASFA3

LANGUAGE: English

SUMMARY LANGUAGE: English

AB The hepatic metabolism of microcystins (MCs), potent cyclic peptide hepatotoxins produced by cyanobacteria, was studied by ip injection in mice and rats. An **immunoaffinity** purification method using an anti-MC-LR monoclonal antibody showed a remarkable effect on the removal of contaminants in the hepatic cytosol and enabled us to analyze MCs and their metabolites by HPLC and Frit-FAB LC/MS. At 3, 6, and 24 h post-injection of MC-RR, a small percent of the applied dose was detected in all of the mouse livers together with several metabolites. Among them, GSH and Cys conjugates of MC-RR were identified at 3 and 24 h, respectively, by comparison with the chemically prepared standards, indicating that the thiols of GSH and Cys nucleophilically bound to the Mdha moiety of MCs. Another metabolite was presumed to be formed by both epoxidation followed by hydrolysis and sulfate conjugation in the Adda moiety and GSH conjugation in the Mdha moiety. In rat livers, MC-LR showed almost the same behavior as that of MC-RR in mouse livers. These results suggest that the conjugation of GSH with MCs may play a role in the metabolic pathway leading to detoxification of MCs.

L11 ANSWER **58** OF 72 CROPV COPYRIGHT 2003 THOMSON DERWENT on STN

ACCESSION NUMBER: 1998-82154 CROPV H S G

TITLE: Herbicide contamination of aquifers: a case study in Lombardy.

AUTHOR: Guzzella L; Paolis A de; Pozzoni F; Bonfanti C; Giuliano G

CORPORATE SOURCE: C.N.R.Inst.Water-Res.Brugherio; C.N.R.Inst.Water-Res.Rome

LOCATION: Brugherio; Rome, It.

SOURCE: Proc.Symp.Pestic.Chem. (10 Meet., 513-21, 1996) 3 Fig. 3 Tab. 7 Ref.

AVAIL. OF DOC.: Istituto di Ricerca sulle Acque, CNR, via della Mornera 25,  
20047 Brugherio, Milan, Italy.

DOCUMENT TYPE: Conference

LANGUAGE: English

FIELD AVAIL.: AB; LA; CT; MPC

AB Soil and water samples were taken from depths up to 1 m in maize growing areas in the Lombardy plain, Italy, in order to study the contamination of aquifers, and also to validate the use of **ELISA** assays for contaminant analysis. The sites were Cervignana d'**Adda**, Boffalora d'**Adda** and Manerbio. In the Boffalora site, the top layer of soil contained most residues throughout the sampling period at levels of up to 10 ug/kg metolachlor, 5 ug/kg alachlor, 6 ug/kg terbuthylazine and 1 ug/kg atrazine, peaking 1 mth after treatment. Deethylterbuthylazine was only observed after 1 mth, and 2,6-diethylaniline, an alachlor metabolite, peaked after 6 mth. Atrazine and deethylatrazine were observed at low and constant levels throughout the sampling period. Results from Cervignana and Manerbio were very similar to those from Boffalora. (conference paper).

L11 ANSWER 59 OF 72 CROPU COPYRIGHT 2003 THOMSON DERWENT on STN

ACCESSION NUMBER: 1997-89290 CROPU H S

TITLE: Migration of pesticide residues from agricultural soil to groundwater.

AUTHOR: Guzzella L; De Paolis A; Bartone C; Pozzoni F; Giuliano G

CORPORATE SOURCE: C.N.R.Inst.Water-Res.Brugherio; C.N.R.Inst.Water-Res.Rome

LOCATION: Brugherio; Rome, It.

SOURCE: Int.J.Environ.Anal.Chem. (65, No. 1-4, 261-75, 1996) 5 Fig. 7  
Tab. 12 Ref.

AVAIL. OF DOC.: Istituto di Ricerca sulle Acque, CNR, 20047 Brugherio  
(Milan), Italy.

DOCUMENT TYPE: Conference

LANGUAGE: English

FIELD AVAIL.: AB; LA; CT; MPC

AB The depth of atrazine, alachlor (ALA), terbuthylazine (TER) and metolachlor (MET) residues, together with some of their transformation products, in the soil of 3 sites in N. Italy was studied (GC-NPD) in order to ascertain if there was any danger of leaching into aquifers. The sites (Cervignano d'**Adda**, Boffalora d'**Adda** and Manerbio) were mainly maize fields which had been treated with ALA (Lasso) and a combination of TER and MET (Primagram Tz). The highest pesticide content was found in the 5-30 cm layer. TER was not found any lower than 64 cm, while MET and ALA were found to move quickly from the top layers to lower ones. Similar results were obtained from all three sites. The use of **ELISA** test kits was also studied to determine their suitability for use in a screening procedure, and gave results that were well correlated with those from GC. (conference paper).

L11 ANSWER 60 OF 72 AQUASCI COPYRIGHT (C) 2003 FAO (on behalf of the ASFA  
Advisory Board). All Rights Reserved. on STN DUPLICATE 9

ACCESSION NUMBER: 96:32782 AQUASCI

DOCUMENT NUMBER: ASFA1 1996 26-18195

TITLE: Novel monoclonal antibodies against microcystin  
and their protective activity for hepatotoxicity

AUTHOR: Nagata, S.; Soutome, H.; Tsutsumi, T.; Hasegawa, A.;  
Sekijima, M.; Sugamata, M.; Harada, K.; Suganuma, M.; Ueno,  
Y.\*

CORPORATE SOURCE: Fac. Pharma. Sci., Sci. Univ. Tokyo, 12 Ichigaya

SOURCE: Funagawara-Machi, Shinjuku-Ku, Tokyo 162, Japan  
NAT. TOXINS, (1995) vol. 3, no. 2, pp. 78-86.  
ISSN: 1056-9014.

DOCUMENT TYPE: Journal

FILE SEGMENT: ASFA1

LANGUAGE: English

SUMMARY LANGUAGE: English

AB Six monoclonal ~~antibodies~~ (MABs) to microcystin-LR (MCLR), a cyclic heptapeptide hepatotoxin isolated from the cyanobacterium *Microcystis aeruginosa*, were produced. They showed the protective effects on hepatotoxicity of MCLR in vitro and in vivo, and on the inhibition of protein phosphatase by MCLR. Competitive **enzyme-linked immunosorbent** assays with various microcystins revealed that the six MABs recognized a part of the molecule, in particular, a tertial structure around **Adda**, 3-amino-9-methoxy-2,6,8-trimethyl 10-phenyldeca-4,6-dienoic acid. The specificity of these MABs varied slightly. In primary rat hepatocyte cultures, all MABs showed protective effects against the MCLR-induced cell damages, assessed by morphological changes, lactate dehydrogenase release into the medium, and a calorimetric assay to measure the cell viability using a tetrazolium dye. The M8H5 MAB showing the highest affinity for MCLR blocked the lethal effects and hepatocellular damage to mice. In addition, M8H5 MAB recovered protein phosphatase 2A inhibition by MCLR in a dose-dependent manner, while phosphatase inhibition by okadaic acid was not affected. Thus, the MABs specifically reacted with the microcystins and prevented their biological activities. This is the first report on the protective effects of specific monoclonal **antibodies** on MCLR-induced toxicity.

EP S.R.

L11 ANSWER 61 OF 72 EUROPATFULL COPYRIGHT 2003 WILA on STN

PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET

ACCESSION NUMBER: 617125 EUROPATFULL EW 199439 FS OS STA B

TITLE: A novel transport protein gene from the Huntington's disease region.  
Transportproteinen aus dem Bereich der Huntingtonschen Krankheit.  
Gene pour la proteine de transport provenant de la region de la maladie de Huntinton.

INVENTOR(S): Duyao, Mabel P., 24 Aberdeen Avenue, Cambridge, Massachusetts 02138, US;  
MacDonald, Marcy E., 462 Waltham Street, Lexington, Massachusetts 02173, US;  
Gusella, James F., 7 Woodstock Drive, Framingham, Massachusetts 01701, US

PATENT ASSIGNEE(S): THE GENERAL HOSPITAL CORPORATION, Fruit Street (Bar-3), Boston, MA 02114, US

PATENT ASSIGNEE NO: 370401

AGENT: Wright, Simon Mark et al, Kilburn & Strode 30 John Street, London WC1N 2DD, GB

AGENT NUMBER: 72651

OTHER SOURCE: ESP1994068 EP 0617125 A2 940928

SOURCE: Wila-EPZ-1994-H39-T1a

DOCUMENT TYPE: Patent

LANGUAGE: Anmeldung in Englisch; Veroeffentlichung in Englisch

DESIGNATED STATES: R AT; R BE; R CH; R DE; R DK; R ES; R FR; R GB; R GR; R IE; R IT; R LI; R LU; R MC; R NL; R PT; R SE

PATENT INFO.PUB.TYPE: EPA2 EUROPAEISCHE PATENTANMELDUNG  
 PATENT INFORMATION:

	PATENT NO	KIND DATE
	EP 617125	A2 19940928
'OFFENLEGUNGS' DATE:		19940928
APPLICATION INFO.:	EP 1994-302092	19940323
PRIORITY APPLN. INFO.:	US 1993-35928	19930323

ABEN The invention relates to a novel transport protein, IT10C3, and in particular to nucleic acid molecules coding for IT10C3. Also disclosed are recombinant nucleic acid molecules, cells containing them, antisense IT10C3 nucleic acid constructs **antibodies** having binding affinity to IT10C3 polypeptides and hybridomas producing the **antibodies**. The invention also extends to nucleic acid probes for the detection of IT10C3 nucleic acid, methods of detecting IT10C3 nucleic acid or polypeptides in a samples, and kits containing such nucleic acid probes or **antibodies**.

L11 ANSWER 62 OF 72 AQUASCI COPYRIGHT (C) 2003 FAO (on behalf of the ASFA Advisory Board). All Rights Reserved. on STN DUPLICATE 10

ACCESSION NUMBER: 95:19604 AQUASCI

DOCUMENT NUMBER: ASFA1 1995 25-10187

TITLE: Use of a colorimetric protein phosphatase inhibition assay and **enzyme linked immunosorbent**

assay for the study of microcystins and nodularins

AUTHOR: An, JiSi; Carmichael, W.W.\*

CORPORATE SOURCE: Dep. Biol. Sci., Wright State Univ., Dayton, OH 45435, USA

SOURCE: TOXICON, (1994) vol. 32, no. 12, pp. 1495-1507.

(ISSN: 0041-0101.)

DOCUMENT TYPE: Journal

FILE SEGMENT: ASFA1

LANGUAGE: English

SUMMARY LANGUAGE: English

AB Microcystins and nodularins are cyclic peptide hepatotoxins and tumor promoters produced by several genera of cyanobacteria. Using a rabbit anti-microcystin-LR polyclonal **antibody** preparation, the cross-reactivity with 18 microcystin and nodularin variants was tested. A hydrophobic amino acid, 3-amino-9-methoxy-10-phenyl-2,6,8-trimethyl-deca-4(E), 6(E)-dienoic acid (**Adda**), which has the (E) form at the C-6 double bond in both microcystin and nodularin, was found essential for these toxins to express **antibody** specificity. Modification of -COOH in glutamic acid of microcystin and nodularin did not alter their **antigenicity**. **Antibody** cross-reactivity of these toxins was compared with their ability to inhibit protein phosphatase type 1 (PP1). Detection of PP1 inhibition was done by measuring the inhibition effect of the toxins on p-nitrophenol phosphate activity toward PP1. PP1 was obtained as recombinant PP1 expressed in E. coli. The inhibition effect of five microcystins and two nodularins on recombinant PP1 activity toward p-nitrophenol phosphate was measured in a microwell plate reader. The concentration of microcystin-LR causing 50% inhibition of recombinant PP1 activity (IC sub(50)) was about 0.3 nM, while that of two modified microcystins had a significantly higher IC sub(50). Microcystin-LR and nodularin with the (z) form of **Adda** at the C-6 double bond or having the monoester of glutamic acid did not inhibit PP1. These three toxins were also nontoxic in the mouse bioassay. These

L11 ANSWER 63 OF 72 Elsevier BIOBASE COPYRIGHT 2003 Elsevier Science B.V.  
on STN

ACCESSION NUMBER: 1994134849 ESBIOBASE  
TITLE: Molecular structure of the cyanobacterial  
tumor-promoting microcystins  
AUTHOR: Rudolph-Bohner S.; Mierke D.F.; Moroder L.  
CORPORATE SOURCE: L. Moroder, Max-Planck-Institut Biochemie, Am  
Klopferspitz 18A, 82152 Martinsried, Germany.  
SOURCE: FEBS Letters, (1994), 349/3 (319-323) .  
CODEN: FEBLAL ISSN: 0014-5793  
DOCUMENT TYPE: Journal; Article  
COUNTRY: Netherlands  
LANGUAGE: English  
SUMMARY LANGUAGE: English

AB The three-dimensional structure of the two hepatotoxic microcystins LR and LY has been determined by two-dimensional nuclear magnetic resonance (2D NMR) spectroscopy and distance geometry calculations. For the microcystin LY a single family of highly convergent structures was obtained. This family is characterized by a relatively compact boat-like ring structure with the large side chain of the **Adda** residue protruding from the concave side, in close proximity to the Tyr side chain. Conversely, for the microcystin LR the calculations result in three conformational families characterized by an even more compact ring structure. The **Adda** and Arg side chains protrude from the ring distal from one another caused by the repulsion between the guanido function of Arg and the hydrophobic **Adda**. The lower toxicity of the LY microcystin could result from the restricted access of the **Adda** side chain, an essential residue for activity, which results from the close proximity of the aromatic Tyr residue. A significant enthalpic cost would be expected for disturbance of this hydrophobic collapse and correspondingly lower binding affinity to receptor molecules would be predicted. From the structures of the two related microcystins, and homology with other known toxins, we propose a working hypothesis of the **Adda** side chain interacting with a hydrophobic pore of the phosphatases while the rest of the microcystin acts as a scaffold to help stabilize the interdigitation of the **Adda** with additional intermolecular interactions.

L11 ANSWER 64 OF 72 PROMT COPYRIGHT 2003 Gale Group on STN

ACCESSION NUMBER: 92:492410 PROMT  
TITLE: First Data Acquisition Subsystem for SPARCstation SBus  
Offers Real-time Stimulus and Analysis at High Speed  
SOURCE: News Release, (13 Jul 1992) pp. 1.  
LANGUAGE: English

AB Analyx Systems has launched industry's first SBus data acquisition subsystem. The 18-square inch board opens a new era in precision instrumentation for the SPARCstation market. The Analyx **ADDA** subsystem can continuously acquire, convert and store streams of high speed analog data without host CPU intervention. Simultaneously, it can generate four separate streams of analog data as concurrent stimuli. Several "firsts" and notable technical achievements include: o Only SBus analog-to-digital and digital-to-analog subsystem o First time-locked data acquisition board for real-time analysis of high-end (14-bit) quantities. o True real-time A/D and D/A that requires no overhead or intervention by the host SPARCstation processor; performs all operations automatically. o 16 channel, 14-bit A/D, 4 channel, 18-bit D/A o 166 KHz sample rate o

Fully isolated operation for noise **immunity** and safety o Priced substantially less than any other form of SPARCstation instrumentation The entire subsystem occupies one 18-square inch Sbus board. Supplied software makes it a complete plug-and-play system. Sampled waveforms are presented on the SPARCstation's display.

Full text available on PTS New Product Announcements.

L11 ANSWER **65** OF 72 PCTFULL COPYRIGHT 2003 Univentio on STN  
 ACCESSION NUMBER: 1992021678 PCTFULL ED 20020513  
 TITLE (ENGLISH): LIPOXYGENASE INHIBITING PYRROLO [1,2a]INDOLE COMPOUNDS  
 TITLE (FRENCH): COMPOSES DE PYRROLO[1,2a]INDOLE INHIBITEURS DE LA LIPOXYGENASE  
 INVENTOR(S): ADAMS, Jerry, Leroy;  
 GARIGIPATI, Ravi, Shanker  
 PATENT ASSIGNEE(S): SMITHKLINE BEECHAM CORPORATION;  
 ADAMS, Jerry, Leroy;  
 GARIGIPATI, Ravi, Shanker  
 LANGUAGE OF PUBL.: English  
 DOCUMENT TYPE: Patent  
 PATENT INFORMATION:

NUMBER	KIND	DATE
WO 9221678	A1	19921210

DESIGNATED STATES  
 W: AT AU BE CA CH DE DK ES FR GB GR IT JP KR LU MC NL SE  
 US  
 APPLICATION INFO.: WO 1992-US4779 A 19920605  
 PRIORITY INFO.: US 1991-712,030 19910607  
 ABEN Pyrrolo[1,2-a]indole hydroxyurea/hydroxamate compounds, pharmaceutical compositions containing said compounds and their use as inhibitors of oxygenated polyunsaturated fatty acid metabolism.  
 ABFR Composes d'hydroxamate/hydroxyuree de pyrrolo[1,2-a]indole, compositions pharmaceutiques contenant lesdits composes et leur utilisation comme inhibiteurs du metabolisme des acides gras oxygenes eet polyinsatures.

L11 ANSWER **66** OF 72 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN  
 ACCESSION NUMBER: 1989:445155 BIOSIS  
 DOCUMENT NUMBER: BA88:93427  
 TITLE: CHOLESTEROL EFFLUX FROM AND HIGH-DENSITY LIPOPROTEINS BINDING TO CULTURED **BOVINE** VASCULAR ENDOTHELIAL CELLS ARE HIGHER THAN WITH VASCULAR SMOOTH MUSCLE CELLS.  
 AUTHOR(S): SAVION N; KOTEV-EMETH S  
 CORPORATE SOURCE: MAURICE AND GABRIELA GOLDSCHLEGER EYE RES. INST., SHEBA MED. CENTER, IL-52621 TEL HASHOMER, ISR.  
 SOURCE: EUR J BIOCHEM, (1989) 183 (2), 363-370.  
 CODEN: EJBCAI. ISSN: 0014-2956.  
 FILE SEGMENT: BA; OLD  
 LANGUAGE: English  
 AB Cholesterol metabolism was studied and compared in confluent cultures of adult **bovine** aortic endothelial and boine aortic smooth muscle cells which were sgrown under similar conditions. The total cholesterol content/mg protein was only slightly higher in smooth muscle cells than in edothelial cells and upon exposure to [3H]cholesterol the maximal specific activity/mg protein obtained was similar in both cell types. Most (98%) of



the incorporated [3H]cholesterol remained in the form of free cholesterol in both cell types, and provided a system for the study of cholesterol efflux. The role of high-density lipoproteins (HDL) and human serum in cholesterol influx and efflux, in both endothelial and smooth muscle cells, was studied. Net cholesterol transport in the cultures was calculated and net efflux was observed in both cell types. This was higher in endothelial than in smooth muscle cells and HDL was more efficient than human serum in promoting net cholesterol efflux. During the influx experiments, no conversion of [3H]cholesterol to [3H]cholesteryl ester was observed either in the cell layer or in the incubation medium. On the other hand, during efflux experiments when HDL but not human serum was the acceptor, some (about 6%) conversion of [3H]cholesterol to [3H]cholesteryl ester occurred in the incubation medium. 125I-HDL3 binding to endothelial and smooth muscle cells was studied and demonstrated saturation at a concentration of about 100 7mg protein/ml for both cell types. However, endothelial cells bound about six times more 125I-HDL3 than smooth muscle cells. These studies indicate that vascular endothelial cells are more protected against cholesterol accumulation than vascular smooth muscle cells. The greater ability of endothelial cells to bind HDL complexes when compared with smooth muscle cells, and thereby to be more susceptible to HDL induced cholesterol efflux, may add a new mechanism through which endothelial cells protect the blood vessel from cholesterol accumulation.

L11 ANSWER 67 OF 72 PCTFULL COPYRIGHT 2003 Univentio on STN  
 ACCESSION NUMBER: 1988009972 PCTFULL ED 20020507  
 TITLE (ENGLISH): PARALLEL MACHINE ARCHITECTURE FOR PRODUCTION RULE SYSTEMS  
 TITLE (FRENCH): ARCHITECTURE DE MACHINE PARALLELE POUR DES SYSTEMES DE REGLES DE PRODUCTION  
 INVENTOR(S): ALLEN, John, Daniel, Jr.; BUTLER, Philip, Lee  
 PATENT ASSIGNEE(S): MARTIN MARIETTA ENERGY SYSTEMS, INC.  
 LANGUAGE OF PUBL.: English  
 DOCUMENT TYPE: Patent  
 PATENT INFORMATION:

NUMBER	KIND	DATE
WO 8809972	A1	19881215

## DESIGNATED STATES

W: AT BE CH DE FR GB IT JP LU NL SE  
 APPLICATION INFO.: WO 1988-US1901 A 19880609  
 PRIORITY INFO.: US 1987-59,976 19870609

ABEN A parallel processing system (2) for production rule programs utilizes a host processor (4) for storing production rule right hand sides (RHS) and a plurality of rule processors (6) for storing left hand sides (LHS). The rule processors operate in parallel in the recognize phase of the system recognize -Act Cycle- to match their respective LHS's against a stored list of working memory elements (WME) in order to find a self-consistent set of WME's. The list of WME is dynamically varied during the Act phase of the system in which the host executes or fires rule RHS's for those rules for which a self-consistent set has been found by the rule processors. The host (4) transmits

instructions for creating or deleting working memory elements as dictated by the rule firings until the rule processors are unable to find any further self-consistent working memory element sets at which time the production rule system is halted.

ABFR Un systeme de traitement en parallele (2) pour la production de programmes de regles utilise un ordinateur central (4) pour stocker des parties droites (RHS) de regles de production et une pluralite de processeurs de regles (6) pour stocker des parties gauches (LHS). Les processeurs de regles fonctionnent en parallele dans la phase de reconnaissance du systeme - cycle d'action - pour faire correspondre leurs LHS respectives avec une liste memorisee d'elements memoire de travail (WME) de maniere a trouver un ensemble autoconsistant d'elements memoire de travail (WME). La liste des WME varie dynamiquement pendant la phase d'action du systeme dans lequel l'ordinateur central execute ou declenche les RHS pour les regles dont un ensemble autoconsistant a ete trouve par les processeurs de regles. L'ordinateur central (4) transmet des instructions pour creer ou effacer des elements memoire de travail comme cela est dicte par les declenchements de regle jusqu'a ce que les processeurs soient invalides dans le but de trouver d'autres eventuels ensembles d'elements memoire de travail autoconsistants, moments pendant lesquels le systeme de regle de production est arrete.

L11 ANSWER 68 OF 72 FSTA COPYRIGHT 2003 IFIS on STN

ACCESSION NUMBER: 1982(05):A0416 FSTA

TITLE: [Analysis and quality control in the food and agricultural industries. II. Principles of analytical techniques.]

Techniques d'analyse et de controle dans les industries agro-alimentaires. II. Principes des techniques d'analyse.

AUTHOR: Linden, G. (Editor); Bouix, M.; Simon, D.; Vilbois, F.; Lorient, D.; Lhugenot, J. C.; Voilley, A.; Rouiller, M.; Simatos, D.; Meur, J. F. le; Nours, H. le; Launay, B.; Colas, A.; Melcion, J. P.; Monredon, F. de; Petel, C.; Tome, D.; Naulet, N.; Buleon, A.; Gallant, J. D.; Adda, J.; Simmonnet, G.; Leroux, P.; Leveau, J. Y.; Sauvageot, F.; Adrian, J.; Rabache, M.; Frange, R.; Derache, R.; Saint Blanquat, G. de France, Association pour la Promotion Industrie Agriculture (APRIA); 11 Rue Lavoisier, F-75384 Paris Cedex 08, France; Technique & Documentation. Price 335F

SOURCE: (1981) xxii + 436pp. ISBN 2-85206-083-3, many ref.

DOCUMENT TYPE: Book

LANGUAGE: French

AB This second vol. of this manual of analysis of foods and agricultural materials includes the following sections: Spectrometric techniques, by G. Linden (pp. 3-43, many ref.). Other optical techniques, by D. Simon & F. Vilbois (pp. 44-58, 5 ref.). Chromatography, by D. Lorient, J. C. Lhugenot

& A. Voilley (pp. 59-95, many ref.). Electrophoresis, by M. Rouiller (pp. 96-110, 18 ref.). Calorimetric techniques, by D. Simatos (pp. 111-139, many ref.). Electrochemical techniques, by H. le Nours & J. F. le Meur (pp. 140-155, 25 ref.). Rheological techniques, by B. Launay (pp. 157-184, 13 ref.). Granulometric techniques, by A. Colas, J. P. Melcion, F. de Monredon & C. Petel (pp. 185-203, 17 ref.). NMR, by D. Tome & N. Naulet (pp. 204-216, 17 ref.). X-ray diffraction, by A. Buleon (pp. 217-223, 5 ref.). Electron microscopy, by J. D. Gallant (pp. 224-242, 25 ref.). Mass spectrometry, by J. Adda (pp. 243-257, 6 ref.). Radiochemical techniques, by G. Simonnet (pp. 258-276, 17 ref.). Enzymic techniques, by P. Leroux (pp. 279-295, 8 ref.). **Immunological** techniques, by M. Rouiller (pp. 296-314, many ref.). Microbiological techniques for chemical analyses, by J. Y. Leveau & M. Bouix (pp. 315-323, 6 ref.). Sensory analysis, F. Sauvageot (pp. 325-390, many ref.). Nutritional analysis, by J. Adrian, M. Rabache & R. Frange (pp. 393-420, 16 ref.). Toxicological analysis, by R. Derache & G. de Saint Blanquat (pp. 421-436, 27 ref.). [See also preceding & following abstr.]

L11 ANSWER **69** OF 72 USPATFULL on STN

ACCESSION NUMBER: 78:17704 USPATFULL

TITLE: Calibrated optical micrometer

INVENTOR(S): Dehait, Jack T., Dayton, OH, United States  
Dietz, David C., Xenia, OH, United States  
Snyder, Milo S., Xenia, OH, United States  
Talor, Francis M., Xenia, OH, United States

PATENT ASSIGNEE(S): Systems Research Laboratories, Inc., Dayton, OH, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4082463		19780404
APPLICATION INFO.:	US 1977-757217		19770106 (5)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Corbin, John K.		
ASSISTANT EXAMINER:	Punter, Wm. H.		
LEGAL REPRESENTATIVE:	Biebel, French & Nauman		
NUMBER OF CLAIMS:	4		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	9 Drawing Figure(s); 9 Drawing Page(s)		
LINE COUNT:	823		

AB A method and apparatus for calibrating an optical micrometer utilizes a precisely dimensioned grate which is temporarily introduced into the optical path of the instrument within its zone of measurement. A beam of light is scanned through the zone of measurement and across the grate, and the information obtained therefrom is recorded in an electronic memory. Thereafter, articles subsequently placed within the zone of measurement are scanned by the beam, and the information obtained therefrom is compared against the calibration data to provide an accurate measurement of the article.

L11 ANSWER **70** OF 72 USPATFULL on STN

ACCESSION NUMBER: 76:57434 USPATFULL

TITLE: Chip topography for MOS integrated circuitry  
microprocessor chip

INVENTOR(S): Buchanan, John K., Tempe, AZ, United States

PATENT ASSIGNEE(S): Motorola, Inc., Chicago, IL, United States (U.S.)

corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 3987418		19761019
APPLICATION INFO.:	US 1974-519147		19741030 (5)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Shaw, Gareth D.		
ASSISTANT EXAMINER:	Rhoads, Jan E.		
LEGAL REPRESENTATIVE:	Weiss, Harry M., Hoffman, Charles R.		
NUMBER OF CLAIMS:	9		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	9 Drawing Figure(s); 9 Drawing Page(s)		
LINE COUNT:	702		

AB The chip architecture of an MOS microprocessor chip includes data bus input-output buffer circuitry located along the lower right hand edge of the chip. High order address buffer output circuitry is located along the bottom of the chip. Directly to the left of the data bus input-output buffer circuitry is the arithmetic logic unit circuitry, and to the right of this and adjacent to the high order address bit buffer circuitry is located a register section including first accumulator register, a second accumulator register, high and low order index registers, a high order incrementer and an associated program counter, a low order incrementer and associated program counter, a high order stack pointer register and a low order stack pointer register, and a temporary register arranged on the surface of the microprocessor chip in a particular sequence. To the left of the register section and along the lower left hand edge of the chip is located a plurality of low order address bit buffer circuits. Above and coupled to the register section and to the arithmetic logic unit is located a plurality of bootstrap driver circuits for driving signals which enable programmed data transfers between the various registers, the arithmetic logic unit and a plurality of internal data bus and address bus conductors coupled to the data bus input-output buffer circuitry and the high order and the low order address bit buffer circuits, respectively. Read/write circuitry, a condition code register, decision logic circuitry, and an instruction register are located in sequence along the upper righthand edge of the chip. To the left of the decision logic circuitry and the condition code register and above the bootstrap driver circuitry and coupled thereto is a logic control circuitry section. Above the logic control circuitry and along the upper edge of the chip to the left of the instruction register is located an instruction decoder circuitry section. Along the upper lefthand edge of the chip is located input-output control circuitry and look-ahead circuitry for the instruction decoder. Between the lefthand portion of the logic control circuitry and the right hand portion of the I/O control circuitry is located timing generator circuitry coupled to the logic control circuitry for enabling the selected logic gates therein, which are selected and driven by the instruction decoder.

L11 ANSWER 71 OF 72 BABS COPYRIGHT 2003 BEILSTEIN CDS MDLI on STN

ACCESSION NUMBER: 6326132 BABS

TITLE: Congener-Independent Immunoassay for Microcystins and Nodularins

AUTHOR(S): Fischer, Werner J.; Garthwaite, Ian; Miles, Christopher O.; Ross, Kathryn M.; Aggen, James B.; Chamberlin, A. Richard; Towers, Neale R.; Dietrich,

SOURCE: Daniel R.  
~~Environ. Sci. Technol.~~ (2001), 35(24), 4849-4856  
CODEN: ESTHAG

DOCUMENT TYPE: Journal

LANGUAGE: English

SUMMARY LANGUAGE: English

AB Cyanobacteria (blue-green algae) (e.g., *Microcystis* and *Nodularia* spp.) capable of producing toxic peptides are found in fresh and brackish water worldwide. These toxins include the microcystin (MC) heptapeptides (>60 congeners) and the nodularin pentapeptides (ca. 5 congeners). Cyanobacterial cyclic peptide toxins are harmful to man, other mammals, birds, and fish. Acute exposure to high concentrations of these toxins causes liver damage, while subchronic or chronic exposure may promote liver tumor formation. The detection of cyclic peptide cyanobacterial toxins in surface and drinking waters has been hampered by the low limits of detection required and that the present routine detection is restricted to a few of the congeners. The unusual  $\beta$ -amino acid **ADDA** (4E,6E-3-amino-9-methoxy-2,6,8-trimethyl-10-phenyldeca-4,6-dienoic acid) is present in most (>80 percent) of the known toxic penta- and heptapeptide toxin congeners. Here, we report the synthesis of two **ADDA-haptens**, the raising of **antibodies** to **ADDA**, and the development of a competitive indirect **ELISA** for the detection of microcystins and nodularins utilizing these **antibodies**. The assay has a limit of quantitation of 0.02-0.07 ng/mL (depending on which congeners are present), lower than the WHO-proposed guideline (1 ng/mL) for drinking water, irrespective of the sample matrix (raw water, drinking water, or pure toxin in PBS). This new **ELISA** is robust, can be performed without sample preconcentration, detects toxins in freshwater samples at lower concentrations than does the protein phosphatase inhibition assay, and shows very good cross-reactivity with all cyanobacterial cyclic peptide toxin congeners tested to date (MC-LR, -RR, -YR, -LW, -LF, 3-desmethyl-MC-LR, 3-desmethyl-MC-RR, and nodularin).

L11 ANSWER 72 OF 72 BABS COPYRIGHT 2003 BEILSTEIN CDS MDLI on STN

ACCESSION NUMBER: 6259980 BABS

TITLE: Detection and Identification of Metabolites of  
~~Microcystins~~ Formed in Vivo in Mouse and Rat Livers

AUTHOR(S): Kondo, Fumio; Matsumoto, Hiroshi; Yamada, Seiji;  
Ishikawa, Naohisa; Ito, Emiko; Nagata, Satoshi; Ueno,  
Yoshio; Suzuki, Makoto; Harada, Ken-ichi

SOURCE: ~~Chem. Res. Toxicol.~~ (1996), 9(8), 1355-1359  
CODEN: CRTOEC

DOCUMENT TYPE: Journal

LANGUAGE: English

SUMMARY LANGUAGE: English

AB The hepatic metabolism of microcystins (MCs), potent cyclic peptide hepatotoxins produced by cyanobacteria, was studied by ip injection in mice and rats. An **immunoaffinity** purification method using an anti-MC-LR monoclonal **antibody** showed a remarkable effect on the removal of contaminants in the hepatic cytosol and enabled us to analyze MCs and their metabolites by HPLC and Frit-FAB LC/MS. At 3, 6, and 24 h post-injection of MC-RR, a small percent of the applied dose was detected in all of the mouse livers together with several metabolites. Among them, GSH and Cys conjugates of MC-RR were identified at 3 and 24 h, respectively, by comparison with the chemically prepared standards, indicating that the thiols of GSH and Cys nucleophilically bound to the

Mdha moiety of MCs. Another metabolite was presumed to be formed by both epoxidation followed by hydrolysis and sulfate conjugation in the **Adda** moiety and GSH conjugation in the Mdha moiety. In rat livers, MC-LR showed almost the same behavior as that of MC-RR in mouse livers. These results suggest that the conjugation of GSH with MCs may play a role in the metabolic pathway leading to detoxification of MCs.